36th Annual Gala and Research Showcase

28th Fundraiser Chiraag

ASSOCIATION OF INDIAN PHYSICIANS OF NORTHERN OHIO
Helping you protect what matters most

is what matters most to me.

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- Dharmesh Mehta, MD  
- Saloni Khatri, MD  
- Rupesh Raina, MD  
- Umesh Yalavarthy, MD  
- Raj Vallabhaneni, MD  
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Vice Co-Chair: Jaya Shah, MD  
Executive Directors:  
- Ramesh Shah and Mona Gupta, MD

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- Rupesh Raina, MD  
- Mona Gupta, MD

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- Rajvinder Parmar, MD  
- Shipra Saralaya, MD  
- Rupesh Raina, MD  
- Lakshmanan, MD  
- Raja Shekar, MD  
- More members listed

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- Dharmesh Mehta, MD  
- Rupesh Raina, MD  
- Beejadi Mukunda, MD  
- Akhilesh Chowksi, MD  
- Corattur Natesan, MD  
- Sangita Mehta, MD  
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RESEARCH SHOWCASE COMMITTEE  
Co-Chairs:  
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- Mona Gupta, MD  
- Rupesh Raina, MD  
Member:  
- Harbhajan Parmar, MD

SOCIAL COMMITTEE:  
Chairperson:  
- Rajvinder Parmar, MD  
Members:  
- Hetal Mehta  
- Geetu Pahlajani

SPORTS COMMITTEE  
Chairperson: Arun Gupta, MD
Friends & Family join AIPNO in congratulating Dr. Samir Kapadia, 2019 Distinguished Physician of the Year on his Achievement.

Congratulations!
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Dear Members, Sponsors, Beneficiaries and Friends

Following the path shown by its predecessors AIPNO continue to grow its base and numbers since 1983. AIPNO draws its strength from the experience of old members and the energy of its young members. Every year younger members come up with new innovative ideas and we try to give concrete shape to these ideas with the experience of our senior members. This year we recruited many new members and involved large number of active members to achieve the mission of enhancing the quality of health care by fostering excellence and professionalism in the practice of medicine and supporting efforts to improve the availability of healthcare to under-served populations.

Philanthropy has been one of the key missions of AIPNO. Multiple medical camps were organized by Medical Yatra. Carrying forward this mission to bring awareness among masses about Hypertension, Diabetes, Heart Disease, Hyper-lipidemia, Hearing and vision loss, this year, we organized a free medical camp in Willow Praise Church in Willowick. It was a huge success. I take this opportunity to thank Dr. Raj Vallabhaneni, Dr. Mona Gupta, Dr. Dharmesh Mehta, Dr. Varinder Dhillon, Dr. Manjinder Kaur, Dr. Vikram Rao, Dr. Atta Asef, Dr. Jaya Shah and Mr. Ramesh Shah for their open-hearted support.

This year we will celebrate our 7th Research Showcase. Several organizations have tried to emulate our success. It en-thuses the students, researchers, residents, hospitals, nurses and scholars to participate in AIPNO and help us recruit new young talent, which will help AIPNO to set new milestones and accomplish new heights in future. Dr. Beejadi Mukunda and Dr. Mona Gupta have worked relentlessly for many years to achieve this peak.

Other mission of AIPNO is continuous medical education. Keeping this in mind, we are organizing a CME program at Regency Hospital on November 9, 2019. I would like to thank Dr. Rupesh Raina and Lisa Ballinger for making this possible.

Social Media coverage and online presence have given us public recognition, It has been instrumental in extending our presence in the community. Dr. Dharmesh Mehta has worked tirelessly on this site for the better interest of organization and to keep the people updated with upcoming events.

AIPNO also has its fair share of fun. We had AIPNO Picnic in 2019. It was made possible by the hard work of Dr. Rajvinder Parmar, Mrs. Hetal Mehta, Dr. Raj Vallabhaneni and Dr. Geetu Raina and other members. There was fun at the AIPNO Golf outing in 2019 organized by sports committee chairperson Dr. Arun Gupta.

AIPNO is honored to contribute to various organizations in greater Cleveland that share our mission and vision. This year AIPNO completed $100,000 pledge to Cleveland Sight Center over five years period.
we are looking for new beneficiary for our legacy gift. Each year we also choose a primary beneficiary. After reviewing the track record and contribution to mankind we chose WomenSafe.Inc as our major beneficiary. WomenSafe's mission is to provide emergency shelter and support services for survivors of domestic violence and provide education in the community aimed at reducing the incidence of domestic violence and making the community aware of what help is available.

All achievements of AIPNO could be possible only with the generous support and encouragement of donors and members. My heartfelt gratitude to every donor who has Supported AIPNO through all these years. We will work hard to live up to your expectations so we can win your support for years to come.

My sincere thanks to Dr. Beejadi Mukunda and Dr. Umesh Yalavarthy and other board members for their unselfish support. I would also like to pay my gratitude to the members of the executive committee for their unconditional support.

Last but not least I would like to thank Binnie Eiger, executive assistant, who is the central pillar of our organization, for her untiring support throughout the year.

I take this opportunity to thank my wife Dr. Rajvinder Parmar (Rosy) for her unsparing and relentless support. I would also like to thank my son Aetan and daughter Mahak for letting me work throughout the year with a smiling face and without any complaint.

Sincerely,

Harbhajan Parmar, MD.
President of AIPNO
Dear AIPNO friends and families,

Warm welcome to the 28th “Chiraag” Annual Fund-raising Dinner and 7th Research Showcase. I am delighted to be the Endowment Chair of “Chiraag” and Chair of CME, 2019 and want to take a moment to simply say thank you. I am grateful to our founders, our sponsors, our endowment & executive committee and AIPNO Board of Trustees in bringing together this event and making it the epitome of success.

We are proud and thrilled to support WomenSafe Inc -The Green House. WomenSafe, Inc. not-for-profit domestic violence shelter and resource center in its 38th year of service to survivors of domestic violence. WomenSafe’s mission is to provide emergency shelter and support services for survivors of domestic violence throughout Northeastern Ohio. WomenSafe responds to the needs of victims experiencing domestic violence and provides education in the community aimed at reducing the incidence of domestic violence and making the community aware of what help is available. It is one of only two of the nearly 80 domestic violence programs in the State of Ohio whose programs are fully certified by the Commission on Accreditation for Rehabilitation Facilities (CARF) and the Ohio Department of Mental Health. The agency is also certified by Medicaid for its diagnostic assessment, counseling and community support programs.

AIPNO could not have fulfilled its goals and attained its mission without several generous sponsors and patrons who mirror our mission and values. I want to wholeheartedly thank each and every one of our sponsors for their time, attention and passion to help us remain zealously dedicated to our undertaking and cause. AIPNO is indebted for the continued contribution of all the Health Care Systems in greater Cleveland, including University Hospitals, Lake Health, and community businesses. Our success in raising funds this year was also the result of significant individual donation from Foundations Health Solutions, Skafco, Atrium Medical Group, ID Consultants, Saber Health Care Group, BCJC Group Baird, Dingus & Daga Inc. and HCR ManorCare. These resources help us support medical education and conduct the Research Show Case annually. I am thankful to Dr. Beejadi Mukunda for his enthusiastic support.

I am proud to say AIPNO is the largest organization in the state of Ohio geared towards enhancing the quality of health care by fostering excellence and professionalism in the practice of medicine and supporting efforts to improve the availability of health care to under-served populations in the community and in India. Dr. Jaya, Mr. Ramesh Shah, Dr. Saroj Mahalaha and their team worked tirelessly to make MEDICAL YATRA 2019 an impactful mission.
Sincere thanks to our friends, families and every single one of you in attendance, who have supported AIPNO live up to its sole mission of giving back to the community, once again. I would like to thank our executive assistant Binnie Eiger who has been instrumental in putting this gala event together. I am especially indebted to my wife Dr. Geetu Pahlajani and children Manan and Manya for supporting me to serve AIPNO.

“Chiraag” the Radiance will continue leading AIPNO in its benevolence and almmsgiving journey. As well said by Mother Teresa: “Love is not patronizing and charity isn’t about pity, it is about love. Charity and love are the same — with charity you give love, so don’t just give money but reach out your hand instead.”

Sincerely,
Rupesh Raina, MD, FACP, FAAP, FASN and FNKF
Chair, Endowment Committee, Chiraag
Chair AIPNO CME 2019 and Co-Chair, Research Showcase
Melody J. Stewart was elected in November 2018 to a full term as the 161st Justice to serve on the Court. Prior to joining the Supreme Court, Justice Stewart served on the Eighth District Court of Appeals – elected to an unexpired term in 2006, and twice reelected to full terms. She served as the court’s Administrative Judge in 2013.

Justice Stewart has more than 30 years of combined administrative, legal, and academic experience. She was an administrator for a health care management company, a music teacher, a civil defense litigator, and a law school administrator and professor before being elected to the Court of Appeals. While on the appellate court, Justice Stewart was assigned to hear cases in other appellate districts and on the Ohio Supreme Court.

Justice Stewart earned a Bachelor of Music degree from the College-Conservatory of Music at the University of Cincinnati; her law degree as a Patricia Roberts Harris Fellow from the Cleveland-Marshall College of Law, Cleveland State University; and her Ph.D. as a Mandel Leadership Fellow at Case Western Reserve University’s Mandel School of Applied Social Sciences. She also was awarded an Honorary Doctor of Laws degree from Cleveland State University in 2018.

After practicing law as an assistant law director for the cities of Cleveland and East Cleveland, Justice Stewart worked as a lecturer, an adjunct instructor, and an assistant dean at Cleveland-Marshall before joining the full-time faculty. Her primary teaching areas were ethics and professional responsibility, criminal law, criminal procedure, and legal research, writing, and advocacy. Additionally, she taught at the University of Toledo College of Law and at Ursuline College. She also was director of student services at Case Western Reserve University’s School of Law.

Justice Stewart has served on many boards of trustees and been a member of various professional, educational, civic, and community organizations. She also served as a commissioner and chair of the Board of Planning and Zoning for the city of Euclid. Recently, Justice Stewart completed serving as a member of the Ohio Criminal Justice Recodification Committee; on the board of the Supreme Court’s Judicial College; and as chair of the Ohio Capital Case Attorney Fee Council.

Justice Stewart is admitted to practice in the state and federal courts in Ohio, the District of Columbia, and the United States Supreme Court.

Of historical note: Justice Stewart is the first African-American woman elected to the Ohio Supreme Court.
Marc S. Byrnes is Chairman of Oswald Companies. Under Marc’s leadership, the 125-year employee-owned (ESOP) company has enjoyed significant growth and has strengthened its position among the top 50 largest insurance brokers in the United States. The firm is also ranked among the elite top 10 privately held brokers in the country specializing in employee benefits and financial services that was founded by Marc when his agency merged with Oswald in 1987.

A fixture in the Northeast Ohio civic community, Marc recently served as Chairman of the Board of Directors of United Way of Greater Cleveland. He serves on United Way’s Board of Trustees, Executive and Philanthropic Fund Committees. He was named United Way Volunteer of the Year in 2011. Marc is an active member on the following Boards: Rock and Roll Hall of Fame and University School’s Board of Trustees and Executive Committee. Most recently, Marc chaired the Search Committee for Head of School at University School. He received University School’s Distinguished Alumni of the Year Award in 2012.

In addition, Marc serves as a Board Advisor to: Nirvana Analytics, Proformex, Tailwind Technologies, Inc., and US Bank.

Marc served on the bond issue committees for the Cleveland Metropolitan School District and the Metroparks. He acted as transition Co-Chair for County Executive, Armond Budish, and he is a member of the County’s Economic Commission Council. Marc is a member of the Advisory Board for CSU’s Bernie Moreno Center for Sales Excellence. He serves as Chairman Emeritus of the Cleveland Leadership Center, the preeminent organization for building and engaging civic leadership, as well as participates on CLC’s Endowment Committee. Marc was President (2012-2013) of the 50 Club of Cleveland, the city’s largest leading business society.

Historically, Inside Business has selected Marc among the Power 100 most influential leaders in Northeast Ohio. In 2016, Marc had the honor of being inducted into the Business Hall of Fame. In January 2018, Marc was the recipient of the Gordon E. Heffernan award for Values, Ethics and Community from the Values-in-Action Foundation and in November 2018, he received the prestigious Humanitarian Award from The Diversity Center of Northeast Ohio.

Marc is a 1972 graduate of University School and earned his B.A. from Williams College in 1976.
WomenSafe, Inc. is a 501 (c)(3) not-for-profit domestic violence shelter and resource center in its 37th year of service to survivors of domestic violence. WomenSafe was founded in 1980 by a group of citizens who were concerned about local women and their children who were living in violent homes. WomenSafe’s mission is to provide emergency shelter and support services for survivors of domestic violence throughout Northeastern Ohio. WomenSafe responds to the needs of victims experiencing domestic violence and provides education in the community aimed at reducing the incidence of domestic violence and making the community aware of what help is available.

WomenSafe first provided emergency shelter to abused women and their children with the help of volunteers who provided shelter in their own homes. In November 1980, WomenSafe opened its own shelter, using a rent-free apartment, attached to the Geauga County Sheriff’s Department. Due to the increased traffic flow at the Sheriff’s Department, lack of space and expansion of services, WomenSafe found it necessary to relocate its shelter. WomenSafe rented a house located on the Chardon Square in March 1982. By September 1986, WomenSafe having once again outgrown its facility purchased a home outside of Chardon Square. At that time, WomenSafe’s confidential location housed both the emergency shelter and part of its administrative offices. Additional office space was donated at the Eltech building in Chardon to provide much needed space for administrative personnel and agency volunteers. Outreach counseling services and peer support programs were provided at off-site locations.

In October 2007, WomenSafe opened “the Green House” a disclosed shelter that houses all administrative personnel, shelter staff, the emergency shelter, and all outreach services. This allows the agency to further expand the reach into the community to show that domestic violence still exists and that services are still available.

Services available today include: emergency shelter, 24-hour support and crisis management hot-line, individualized and group counseling, art therapy, court advocacy, peer support, aftercare, education and referrals. To build community awareness, educational presentations are available to civic organizations, schools, churches, or any interested group. The agency also provides “Healthy Relationship” presentations to Lake and Geauga County schools (elementary through college). All services are provided for free regardless of economic income. WomenSafe is one of only two of the nearly 80 domestic violence programs in the State of Ohio whose programs are fully certified by the Commission on Accreditation for Rehabilitation Facilities (CARF) and the Ohio Department of Mental Health. The agency is also certified by Medicaid for its diagnostic assessment, counseling and community support programs. We are also proud to be SafeZone Certified by the Buckeye Region Anti-Violence Organization, which offers a comprehensive cultural competency training and technical assistance to increase safety and resources for survivors of domestic violence, sexual violence, and stalking with the LGBTQI communities.
Dr. Samir Kapadia, is the Chairman of the Department of Cardiovascular Medicine at the Cleveland Clinic. In this capacity, Dr. Kapadia leads the team of cardiologists for the Sydell and Arnold Miller Family Heart & Vascular Institute. Cleveland Clinic has retained its position as the nation's No. 1 hospital for cardiology and heart surgery for 25 consecutive years, according to U.S. News & World Report's annual hospital rankings.

Dr. Kapadia specializes in percutaneous treatment for valve disease, including transcatheter aortic valve replacement (TAVR) and specialized clips for mitral regurgitation, as well as complex coronary interventions and other structural heart disease interventions, including paravalvular leak, atrial septal defect (ASD) and patent foramen ovale (PFO) closure.

Dr. Kapadia joined the staff as an interventional cardiologist in 2003. He served as the director of the Sones Cardiac Catheterization Laboratories since 2009 and as section head of Invasive and Interven-tional Cardiology since 2014. He earned his medical degree with highest honors from Smt. NHL Municipal Medical College in Gujarat, India, in 1989. In 1993, Dr. Kapadia completed his internship and residency in internal medicine at Baylor College of Medicine, in Houston, where he was named Out-standing Resident. He also completed fellowships in cardiology in 1998 and interventional cardiology in 2000 at Cleveland Clinic, where he also served as Chief Interventional Fellow. Following the com-pletion of his training, Kapadia served from 2000 to 2003 as an interventional cardiologist at the VA Puget Sound Health Care System, in Seattle, and held an academic appointment at the University of Washington.

Dr. Kapadia is an active member of various national cardiology societies, including the American Heart Association, American College of Cardiology and Society for Vascular Medicine. He has au-thored over 450 peer-reviewed articles that have been published in leading journals, including the New England Journal of Medicine and the Journal of American Medical Association and is a leader in numerous major cardiovascular trials, including the recent PARTNER 3 and COAPT investigations. He has 15 patents and received many awards and honors over the years, including numerous innovation awards.

He has edited Cardiology Board Review Book and the Textbook of Interventional Cardiology. He has also served as an Associate Editor of JACC Intervention Journal.

Dr. Kapadia is a life member of AIPNO and has been actively involved in the academic mission of AIPNO. He has delivered several CME programs for AIPNO over the years.
Dear Friends,

Thank you for the honor of serving as the Chairman of the Research Showcase for AIPNO. We started this signature event six years ago in an attempt to further the purposes of AIPNO which includes “To conduct educational programs to acquaint the members with clinical, scientific and other developments in the field of medicine.”

The Sixth Research Showcase in 2018 was a grand success with close to seventy abstracts presented by researchers ranging from high school students to university professors. Money was raised to support Medical Yatra to help take two residents to India. Abstracts were printed in the program booklet and cash prizes were awarded. Younger generations’ participation in AIPNO has been achieved with great enthusiasm. This year we are further expanding the program. I am thankful to Mona Gupta, MD, for enthusiastically co-chairing this committee and helping in our goal to take make this event constantly better. Many thanks to the Executive Committee members and the Board Members for their support. Special thanks to Rahul Damania, MD, for his enthusiastic support to all aspects of Research Showcase.

As we celebrate the 36th Anniversary of AIPNO, I am proud to chair this innovative committee. Establishing research grants in the future, bringing more researchers into this great organization, helping younger physicians, nurses and administrators to network and mentor new members are the goals of this committee. This further broadens the purposes of AIPNO. I would like to thank all the members of AIPNO for supporting me to establish the Research Showcase, especially Raja Shekar, MD and Umesh Yalavarthy, MD. I am grateful to all the healthcare systems for supporting this effort and especially to Mr. Gary Robinson, CEO of CDC for his generous support in being the Presenting Sponsor of Research Showcase this year. Many thanks to all the sponsors and supporters, we are in the process of establishing an AIPNO research grant with your help and support. Heartfelt thanks to Ms. Binnie Eiger, Executive Assistant and to Mr. Manohar Daga, for providing accounting oversight.

I am grateful to my children Amrita and Krishna for allowing me to continue to work for AIPNO and to my wife Deepa for all her support.

Sincerely,

Beejadi Mukunda, MD
Chairman,
Research Showcase Committee
Board of Trustee, AIPNO

Dr. Gupta: Research Showcase has continued to improve over past few years e.g. moving to web-based platform, improving the organizational structure etc. Increasing number of high quality abstracts and posters are presented each year. I would like to thank the board of trustees, executive committee, research show-case participants and judges in making our 6th Research a huge success. Special thanks to Dr. Rahul Damania for his enthusiastic support.

I would like to thank my husband Dr. Vijay Rastogi and my sons Sunay Rastogi and Krivam Rastogi for their conditional support and allowing me to work for AIPNO.

Sincerely,

Mona Gupta, MD,
Co-chair Research Showcase, AIPNO,
Chair, Public Relations Committee,
AIPNO, Immediate Past-President, AIPNO.
Annual Fundraising Gala 2019
With sincere gratitude to those who made Chiraag, Annual Dinner and the Research Showcase 2019 Fundraising Dinner a Success…

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Skafco

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L.C. Rao Consulting
Margaret W. Wong & Associates, LLC
PUBLIC RELATIONS COMMITTEE REPORT

“In the long history of humankind, those who learned to collaborate and improvise most effectively have prevailed “ - Charles Darwin

Dear Friends,

Heartfelt gratitude and thank you for the honor of serving as the Chair of the Public Relations Committee for AIPNO to further the noble mission, to encourage Education, Philanthropy and Access to Health Care. We strive to use the resources and knowledge of AIPNO for the health and welfare of the community we serve. We have successfully conveyed our mission amongst the traditional donors and the general public. We have worked hard with local and national organizations to make AIPNO more family friendly and to involve younger physicians.

We proudly hosted the first ever and biggest event in AIPNO’s history, the Fundraiser “Mystic India”, an internationally acclaimed Bollywood Dance Spectacular in 2018 at the Playhouse Square Key Bank State Theatre, Benjamin Rose Institute on Aging was our major beneficiary.

I am proud to say that over 1400 people attended the event making the show a grand success. Based on the tremendous and enthusiastic response we received after our first show, we all believe that “AIPNO Show” is an excellent medium to highlight AIPNO and further enhance our mission. I want to thank Dr. Hari Balaji and Dr. Beejadi Mukunda for their enthusiastic support to all aspects of the show. Many thanks to all the sponsors and supporters esp. Dr. Beejadi Mukunda, Dr. Hari Balaji, Dr. Dharmesh Mehta, Dr. Harbhajan Parmar, Dr. Corattur Natesan, Dr. Vijay Rastogi, Dr. Umesh Yalavarthy, Dr. Satnam Sandhu, Dr. Ravi Krishnan. Special thanks to Dr. Sangeeta Mehta for her overall support. I am grateful to all the eminent business leaders for generously supporting this effort including R.W. Baird & Co. - The BCJC Group, Cognizant, Legacy Health Services, Merrill Lynch, Heartland of Willoughby, Key Private Bank, Margaret Wong and Associates and TIU Consulting for their design, graphics and website work for this great cause. Special thanks to AIPNO executive committee especially Dr. Akhilesh Chowksi, Dr. Corattur Natesan, Dr. Saloni Khatri and Dr. Amit Patel, Friends of AIPNO, Local community organizations, Indian stores/restaurants, TV media, Lotus, India International and Cleveland magazine.

We also celebrated first ever family friendly New Year’s Eve 2018, which was a tremendous success. It was a sold-out event with more than 500 community members including children celebrating to welcome the New Year. Many thanks to executive committee especially Dr. Akhilesh Chowksi, Dr. Harbhajan Parmar, Dr. Dharmesh Mehta, Dr. Corattur Natesan

We started a new tradition - a joint collaboration for the event ”Holi Ke Rang Apno Ke Sang” with ICAGA and Marwari Association of Ohio which was a great success and once again a sold-out program. Special thanks to Dr. Sangita Mehta

This year we organized a family friendly picnic, once again well attended by the entire Cleveland community included kids. We played basketball, cricket and other games and enjoyed delicious food. Our toddlers enjoyed the swings. We organized our first AIPNO free health fair for the entire Cleveland community. Both events were a huge success encouraging us to continue to organize these kinds of events in future. Thanks to Dr. Harbhajan Parmar, Dr. Rupesh Raina, Dr. Dharmesh Mehta, Dr. Raj Vallabhaneni, Dr. Akhilesh Rao for their continued support.

This is the beginning of a movement and with the support of our AIPNO family, we look forward to bringing such quality family friendly collaborative events and entertainment including shows from across the globe in the future. We have a very vibrant AIPNO team and Indian community leadership committed to this cause. I would like to reiterate that AIPNO is for all of us including non-physicians who share our mission. Collaboration with community organizations that share our vision and to involve younger members to strengthen our cause is the goal of this committee. I would like to request entire AIPNO membership to please let us know if they have innovative ideas to further enhance our public relations in the community.

I am thankful to Dr. Harbhajan Parmar, Dr. Hari Balaji and Dr. Dharmesh Mehta for enthusiastically supporting me to establish this innovative committee. Many thanks to executive committee, Board of Trustees and all the members of AIPNO for supporting me to establish this committee. Heartfelt gratitude and thanks to Ms. Binnie Eiger, Executive Assistant who is the pillar of our organization and Mr. Manohar Daga, for the accounting oversight.

I would like to take this opportunity to thank my husband Dr. Vijay Rastogi and my 2 sons Sunay and Krivam Rastogi for their huge sacrifice, love, and unconditional support and allowing me to work for AIPNO.

Sincerely,
Mona Gupta, MD, AGSF
Chair Public Relations Committee
Chair Awards and Recognition Committee
Co-Chair Research Showcase
Immediate Past-President, AIPNO
Public Relations photos: New Year's Eve 2018
Public Relations photos: New Year’s Eve 2018
Public Relations photos: New Year’s Eve 2018
Public Relations Committee Report: Mystic India, Holi, Health Fair, Naach Di Cleveland
Public Relations Committee Report
— AIPNO Picnic

Public Relations photos: TV media, picnic
ACCOUNTANT’S COMPILATION REPORT

Board of Trustees and Members of the
Finance Committee
Association of Indian Physicians of Northern Ohio
Cleveland, Ohio

Management is responsible for the accompanying financial statements of Association of Indian Physicians of Northern Ohio (a non-profit organization), which comprise the statement of financial position as of December 31, 2018, and the related statement of activities for the year then ended in accordance with accounting principles generally accepted in the United States of America. We have performed a compilation engagement in accordance with Statements on Standards for Accounting and Review Services promulgated by the Accounting and Review Services Committee of the AICPA. We did not audit or review the financial statements nor were we required to perform any procedures to verify the accuracy or completeness of the information provided by management. Accordingly, we do not express an opinion, a conclusion nor provide any form of assurance on these financial statements.

Management has elected to omit substantially all of the disclosures and the statement of cash flows required by accounting principles generally accepted in the United States of America. If the omitted disclosures and the statement of cash flows were included in the financial statements, they might influence the user’s conclusions about the Organization’s financial position, changes in net assets and cash flows. Accordingly, the financial statements are not designed for those who are not informed about such matters.

Supplementary Information
The supplementary information contained in Schedules I and II is presented for purposes of additional analysis and is not a required part of the basic financial statements. The information is the representation of management. The information was subject to our compilation engagement, however we have not audited or reviewed the supplementary information, and, accordingly, do not express an opinion, a conclusion, nor provide any form of assurance on such supplementary information.

We are not independent with respect to Association of Indian Physicians of Northern Ohio.

Dingus and Daga, Inc.
Shaker Heights, Ohio
April 24, 2019
ASSOCIATION OF INDIAN PHYSICIANS OF NORTHERN OHIO
STATEMENT OF FINANCIAL POSITION

December 31, 2018
(With summary financial information for 2017)

<table>
<thead>
<tr>
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<th>Without Donor Restrictions</th>
<th>With Donor Restrictions</th>
<th>Totals</th>
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<tbody>
<tr>
<td><strong>ASSETS</strong></td>
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<tr>
<td>Cash</td>
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<td>$ 156,141</td>
<td>$ 212,944</td>
</tr>
<tr>
<td>Contributions receivable</td>
<td>19,750</td>
<td>19,750</td>
<td>3,627</td>
</tr>
<tr>
<td>Prepaid expenses</td>
<td>-</td>
<td>-</td>
<td>9,750</td>
</tr>
<tr>
<td>Investments</td>
<td>209,938</td>
<td>1,096,944</td>
<td>1,306,882</td>
</tr>
<tr>
<td>Due from unrestricted fund</td>
<td>39,676</td>
<td>39,676</td>
<td>48,958</td>
</tr>
<tr>
<td>Due from restricted fund</td>
<td>9,582</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL ASSETS</strong></td>
<td>$ 296,073</td>
<td>$ 1,292,761</td>
<td>$ 1,588,834</td>
</tr>
</tbody>
</table>

|                      |                            |                         |              |
| **LIABILITIES AND NET ASSETS** |                       |                         |              |
| Accounts payable     | $ 33,968                   | $ 33,968                | $ 3,700      |
| Accrued and withheld payroll taxes | 2,763                      | 2,763                   | 1,676        |
| Deferred revenue     | -                          | -                       | 5,000        |
| Accrued contribution | $ 5,000                    | 5,000                   | 35,000       |
| Due to unrestricted fund | 9,582                    | 9,582                   | -            |
| Due to restricted fund | 39,676                   | 39,676                  | 48,958       |
| **TOTAL LIABILITIES** | 76,407                    | 14,582                  | 90,989       | 94,334       |

|                      |                            |                         |              |
| **NET ASSETS**       |                            |                         |              |
| Unrestricted         | 10,800                     | 10,800                  | 5,261        |
| Board designated functioning as an endowment | 208,866                  | 208,866                 | 226,246      |
| Temporarily restricted | 195,817                   | 195,817                 | 231,026      |
| Permanently restricted | 1,082,362                | 1,082,362               | 1,156,788    |
| **TOTAL LIABILITIES AND NET ASSETS** | $ 296,073               | $ 1,292,761             | $ 1,588,834  | $ 1,713,655  |

See accountant’s compilation report.
ASSOCIATION OF INDIAN PHYSICIANS OF NORTHERN OHIO  
STATEMENT OF ACTIVITIES  
Year Ended December 31, 2018  
(With summary financial information for the year ended December 31, 2017)

<table>
<thead>
<tr>
<th>Without Donor Restrictions</th>
<th>With Donor Restrictions</th>
<th>Totals</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>REVENUE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical Yatra contributions</td>
<td>$ 49,355</td>
<td>$ 49,355</td>
<td>$ 68,124</td>
<td></td>
</tr>
<tr>
<td>Chiraag contributions</td>
<td>9,250</td>
<td>9,250</td>
<td>6,500</td>
<td></td>
</tr>
<tr>
<td>Other contributions</td>
<td>-</td>
<td>-</td>
<td>1,051</td>
<td></td>
</tr>
<tr>
<td>Membership dues</td>
<td>$ 5,575</td>
<td>5,575</td>
<td>1,550</td>
<td></td>
</tr>
<tr>
<td>Annual dinner</td>
<td>130,730</td>
<td>130,730</td>
<td>124,550</td>
<td></td>
</tr>
<tr>
<td>Special events</td>
<td>98,483</td>
<td>98,483</td>
<td>3,895</td>
<td></td>
</tr>
<tr>
<td>Investment income</td>
<td>(8,783)</td>
<td>(46,307)</td>
<td>(55,090)</td>
<td>216,103</td>
</tr>
<tr>
<td>Satisfaction of restrictions:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investment fees on donor restricted funds</td>
<td>5,393</td>
<td>(5,393)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Donations/scholarships</td>
<td>80,450</td>
<td>(80,450)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transfer for operations (2%)</td>
<td>20,969</td>
<td>(20,969)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical Yatra direct expenses</td>
<td>29,632</td>
<td>(29,632)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research showcase direct expenses</td>
<td>116,219</td>
<td>(116,219)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL REVENUE</strong></td>
<td>347,938</td>
<td>(109,635)</td>
<td>238,303</td>
<td>421,773</td>
</tr>
<tr>
<td><strong>EXPENSES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical Yatra</td>
<td>29,632</td>
<td>29,632</td>
<td>4,179</td>
<td></td>
</tr>
<tr>
<td>Continuing education costs</td>
<td>3,069</td>
<td>3,069</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Annual dinner</td>
<td>107,735</td>
<td>107,735</td>
<td>84,448</td>
<td></td>
</tr>
<tr>
<td>Special events</td>
<td>77,608</td>
<td>77,608</td>
<td>12,134</td>
<td></td>
</tr>
<tr>
<td>Scholarships and donations</td>
<td>96,000</td>
<td>96,000</td>
<td>26,950</td>
<td></td>
</tr>
<tr>
<td>Wages</td>
<td>19,976</td>
<td>19,976</td>
<td>18,192</td>
<td></td>
</tr>
<tr>
<td>Insurance</td>
<td>1,375</td>
<td>1,375</td>
<td>1,375</td>
<td></td>
</tr>
<tr>
<td>Professional fees</td>
<td>8,339</td>
<td>8,339</td>
<td>7,278</td>
<td></td>
</tr>
<tr>
<td>Taxes</td>
<td>1,740</td>
<td>1,740</td>
<td>1,737</td>
<td></td>
</tr>
<tr>
<td>Office expenses</td>
<td>4,549</td>
<td>4,549</td>
<td>3,666</td>
<td></td>
</tr>
<tr>
<td>Bank and investment fees</td>
<td>8,852</td>
<td>8,852</td>
<td>8,754</td>
<td></td>
</tr>
<tr>
<td>Local travel</td>
<td>295</td>
<td>295</td>
<td>541</td>
<td></td>
</tr>
<tr>
<td>Telephone</td>
<td>609</td>
<td>609</td>
<td>606</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL EXPENSES</strong></td>
<td>359,779</td>
<td>-</td>
<td>359,779</td>
<td>169,860</td>
</tr>
<tr>
<td>Change in net assets</td>
<td>(11,841)</td>
<td>(109,635)</td>
<td>(121,476)</td>
<td>251,913</td>
</tr>
<tr>
<td><strong>NET ASSETS - Beginning</strong></td>
<td>231,507</td>
<td>1,387,814</td>
<td>1,619,321</td>
<td>1,367,408</td>
</tr>
<tr>
<td><strong>NET ASSETS - Ending</strong></td>
<td>$ 219,666</td>
<td>$ 1,278,179</td>
<td>$ 1,497,845</td>
<td>$ 1,619,321</td>
</tr>
</tbody>
</table>

See accountant's compilation report.

-4-
## ASSOCIATION OF INDIAN PHYSICIANS OF NORTHERN OHIO
### SCHEDULE I - SATISFACTION OF RESTRICTIONS

Year Ended December 31, 2018

<table>
<thead>
<tr>
<th></th>
<th>Temporarily Restricted</th>
<th>Permanently Restricted</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unrestricted</td>
<td>Research</td>
</tr>
<tr>
<td>FROM PERMANENTLY RESTRICTED ENDOWMENT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investment fees</td>
<td>$ 5,393</td>
<td>$ (5,393)</td>
</tr>
<tr>
<td>Donation/scholarships</td>
<td>11,000</td>
<td>(11,000)</td>
</tr>
<tr>
<td>Transfer for operations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(maximum 2% of average endowment)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FROM TEMPORARILY RESTRICTED</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical Yatra direct expenses</td>
<td>29,632</td>
<td>$ (29,632)</td>
</tr>
<tr>
<td>Medical Yatra scholarships and donations</td>
<td>48,200</td>
<td>(48,200)</td>
</tr>
<tr>
<td>Annual meeting direct expenses</td>
<td>116,219</td>
<td>$ (116,219)</td>
</tr>
<tr>
<td>Annual meeting scholarships and donations</td>
<td>21,250</td>
<td>(21,250)</td>
</tr>
<tr>
<td></td>
<td>215,301</td>
<td>(137,469)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$ 252,663</td>
<td>$ (137,469)</td>
</tr>
</tbody>
</table>

See accountant's compilation report.
## ASSOCIATION OF INDIAN PHYSICIANS OF NORTHERN OHIO
### SCHEDULE II - MANAGEMENT AND GENERAL EXPENSES

*Years Ended December 31, 2018 and 2017*

<table>
<thead>
<tr>
<th>Expense</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wages</td>
<td>$14,976</td>
<td>$15,192</td>
</tr>
<tr>
<td>Professional fees</td>
<td>8,339</td>
<td>7,278</td>
</tr>
<tr>
<td>Office expenses</td>
<td>4,549</td>
<td>3,666</td>
</tr>
<tr>
<td>Scholarships and donations</td>
<td>15,550</td>
<td>2,000</td>
</tr>
<tr>
<td>Taxes</td>
<td>1,358</td>
<td>1,508</td>
</tr>
<tr>
<td>Insurance</td>
<td>1,375</td>
<td>1,375</td>
</tr>
<tr>
<td>Telephone</td>
<td>609</td>
<td>606</td>
</tr>
<tr>
<td>Local travel</td>
<td>295</td>
<td>541</td>
</tr>
<tr>
<td>Bank and investment fees</td>
<td>289</td>
<td>96</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$47,340</strong></td>
<td><strong>$32,262</strong></td>
</tr>
</tbody>
</table>

See accountant's compilation report.
Year 2019 will be remembered in the history when multiple explosions of services took place for indigent population of rural India.

Primary Care diagnostic services with FREE medicines has been our basic building block for last 18 yrs. Then we added Dental Service, Eye Examinations with Cataract Surgeries. In 2018 we added Gift of Mobility–‘Jaipur Foot’ for amputees. In 2019, with help of Rotary Clubs & Rotary International foundation, we managed to get $100,000 Global Grant to do 320 Surgeries—General & Cardiac—thru five local hospitals. Yatra expanded its educational programs to 5 schools, teaching school children personal hygiene, good dental hygiene, CPR training to save lives etc.

Bengaluru YATRA-2019: Two Mobile Vans- Ophthalmic & Women's Health- have been great assets to 'Take Hospital to Patients' initiatives. Three days we provided services examining women for potential cancer, biopsy and early detection of cancer. This is prevention and educational initiatives.

With Rotary push for sustainable solutions to long term health, Medical YATRA has been instrumental in initiating programs in Schools for health of children.

"As you grow older, you will discover that you have two hands — one for helping yourself, the other for helping others."
- Audrey Hepburn
We have been honored with TWO (2) Non-profit organizations joining with us in expanding our services- Playful India and Million Dollar Round Table Foundation.

Upcoming Events:
- **Medical YATRA-2020** in Ludhiana/Amritsar, Punjab
- **Philanthropia** - Dec. 9, 2019 @ Landerhaven

### Medical YATRA Report Card 2001-2019

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of patients served in India</td>
<td>310,000</td>
</tr>
<tr>
<td>No. of countries visited</td>
<td>10</td>
</tr>
<tr>
<td>No. of physicians inspired</td>
<td>110</td>
</tr>
<tr>
<td>No. of Volunteers inspired</td>
<td>110</td>
</tr>
<tr>
<td>Supported by Foundations</td>
<td>5</td>
</tr>
<tr>
<td>Supported by Pharmaceutical cos.</td>
<td>10</td>
</tr>
<tr>
<td>States visited in India</td>
<td>12</td>
</tr>
</tbody>
</table>

(Gujarat, Rajasthan, Madhya Pradesh, Karnataka, Andhra Pradesh, Tamilnadu, Orissa, Uttarkhand, Maharashtra, Kerala, Punjab)

Awards:  
- FICA person of the Year
- Inducted in Cleveland Hall of Fame
- Distinguished Physician of the Year
- India Association of Greater Akron

NEW AWARDS:
- India Association of Greater Akron
- Ahuja Foundation
- Gurdwara Guru Nanak Foundation Richfield
- Guru Gobind Sikh Society of Cleveland
- Playful India California
- Million Dollar Round Table Foundation
Medical YATRA-2019

-GANDEVI, Guj. Jan. 11-18

-BENAGALURU, K. Jan. 19-25

-LUDHIANA, Punjab Jan. 26-29

Oscar Trophy for “Period. End of Sentence” Documentary
(Sanitary Pads Revolution)

We are humbled to be Part of it. Medical YATRA started making Sanitary Pads in Kharel, Guj. in 2016; since then we have installed @ Five-5-locations in India...in 2018, we installed in Ludhiana, P.

That has helped so many hundreds of girls/women to prevent infection & have better personal hygiene boosting their self-esteem.
## Medical Yatra @ Gandevi, Guj. @ glance

| HOST | Rotary Club of Gandevi, Guj.  
- 10 yrs. of successful, productive Partnership |
|---|---|
| **OUR Mission** | H...To Provide Diagnostic Services +FREE Medicines  
E...Education & Training  
L...Long term sustainable Solutions  
(Surgery+ Equipment)  
P...Prevention Program |
| **Supporting NGOs** | RC-Navsari, RC-Amalsad, RC-Bardoli, RC-Vyara, RC-Abrama,  
RC-Chikhali, RC-Shivarimal RC-Bakersfield  
Gandevi Taluka Seva Samaj, Gnadevi Seva Samaj of N. USA |
| **Hospital Partners** | Haria Hospital, Vapi, Gram Seva Hospital, Kharel,  
Jamanaben S. Hospital, Bardoli, Alipore Hospital, Chikhali  
Yusufeen Hospital, Navsari, Rotary Eye Institute, Navsari, |
| **Clinics** | Gadat, Amalsad, Kharel, Abrama, Alipore,  
Bardoli, Vyara, Shivarimal |
| **NRI Physicians** | 12 |
| **NRI Volunteers** | 10 = 22 |
| **SERVICES:** |  
**Patients Exam. Surgeries Conferences Jaipur Foot** |  
General- 2,364 + Children 435 + Women 311 = Eye 2,517 = 5,627  
Heart 141 + General 464 +Cataract 340 + other 99 = 1,044  
Women 85, NeuroScience-200  
89 |
| **Schools Education Programs** | Dhaneri, Timba, Ambheta, Ajrai  
CPR Training, Dental Hygiene, Sanitary Pads |
Eye Examinations & Corneal Transplantation
@ Rotary Eye Institute, Navsari, Guj.

Corneal transplantation also known as corneal grafting, is a surgical procedure where a damaged or diseased cornea is replaced by donated corneal tissue (the graft). When the entire cornea is replaced it is known as penetrating keratoplasty and when only part of the cornea is replaced it is known as lamellar keratoplasty. Keratoplasty simply means surgery to the cornea. The graft is taken from a recently dead individual with no known diseases or other factors that may affect the chance of survival of the donated tissue or the health of the recipient.

Rapid assessment of avoidable blindness Surveys Conducted in the year 2006-07 showed that prevalence of blindness in India has decreased from 1.1% to 1%, but still there are many issues and corneal blindness is one of them. Approximately 12 million corneal blinds in the country, many others have visual impairment due to corneal diseases.

Eye Camp Organised under Medical Yatra

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Date</th>
<th>Place</th>
<th>Screening</th>
<th>Operation</th>
<th>Spec.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12.01.2019</td>
<td>Anaval</td>
<td>322</td>
<td>63</td>
<td>187</td>
</tr>
<tr>
<td>2</td>
<td>12.01.2019</td>
<td>Amalsad</td>
<td>174</td>
<td>47</td>
<td>97</td>
</tr>
<tr>
<td>3</td>
<td>12.01.2019</td>
<td>Gadat</td>
<td>183</td>
<td>40</td>
<td>70</td>
</tr>
<tr>
<td>4</td>
<td>13.01.2019</td>
<td>Kharaabrama</td>
<td>462</td>
<td>98</td>
<td>307</td>
</tr>
<tr>
<td>5</td>
<td>13.01.2019</td>
<td>Kharei</td>
<td>181</td>
<td>57</td>
<td>90</td>
</tr>
<tr>
<td>6</td>
<td>15.01.2019</td>
<td>Bardoli</td>
<td>201</td>
<td>22</td>
<td>46</td>
</tr>
<tr>
<td>7</td>
<td>15.01.2019</td>
<td>Alipore</td>
<td>224</td>
<td>62</td>
<td>59</td>
</tr>
<tr>
<td>8</td>
<td>16.01.2019</td>
<td>Vyara</td>
<td>241</td>
<td>36</td>
<td>102</td>
</tr>
<tr>
<td>9</td>
<td>16.01.2019</td>
<td>Gandevi</td>
<td>215</td>
<td>69</td>
<td>110</td>
</tr>
<tr>
<td>10</td>
<td>17.01.2019</td>
<td>Shivanaimal</td>
<td>735</td>
<td>71</td>
<td>431</td>
</tr>
</tbody>
</table>

**Total** 2838 562 1499
Medical YATRA-2019

Medical Pilgrimage Project
under
GG#19 81658

Training Programe of Women
Venue: Gram Seva Trust, Kharel
Date: 17 Jan 2019   Time: 10.00 am

Health & Stress Management & CPR Training
Women’s Conference

CPR Training by Dr. M. Varia
‘Gift of Mobility’-Jaipur Foot (with Physiotherapy)

Our Partners: Gandevi Taluka Seva Trust, Gandevi Seva Samaj of N. America
Divyang Foundation, Navsari
Professionals: Ratna Nidhi Trust, Mumbai
Executive D. : Dr. Mohan Patel
No. of Patients ; 87
(30 Calipers, 38 J. Foot, 9 Crutches, 6 Wheel Chairs, 4 Hands)
AIPNO- Medical Yatra and Rotary club, in addition to health initiative, added 'Knowledge Dispersion' initiative to their medical pilgrimage this year. Three neurosurgery CMEs were organized under this initiative. Dr. M. Deogaonkar from Ohio State University discussed t Neurosurgical advances in the field of surgery for movement disorders, pain and spasticity with the local physicians.

I. CME was held at Mahavir Cardiac Hospital in Surat on the 11th of January was hosted by Association of Physicians, Surat. About 80 local physicians, neurologists and residents attended & interacted with him.

II. CME was at the Haria Memorial Rotary hospital in Vapi on Jan 16 th and about 100 physicians and nurses attended.

III. CME was at Rangadore Memorial Hospital in Bengaluru on January 19th about 40
Congratulations

TO THE
RESEARCH SHOWCASE 2018 WINNERS

CLINICAL RESEARCH & QUALITY IMPROVEMENT

First Place: Snehi Shah
Second Place: Adam Lauko
Third Place: Naveen Dhawan

CASE REPORTS

First Place: Amir Mansour
Second Place: Aditi Mittal
Third Place: Randol Kennedy

BASIC SCIENCES

First Place: Alisha Gupta
Second Place: Ryan Edelbrock
Third Place: Pallavi Sharma
Dr. Arun Gupta, Chair of the AIPNO Sports Committee organized the second annual “H.P. Sundaresh Memorial Golf Outing” on June 30, 2019. The event took place at Signature of Solon Country Club in Solon, OH. Forty-seven players golfed on a beautiful sunny day. The golfers enjoyed a catered lunch from Saffron Patch, the driving range and then hitting the links. The sports committee would like to thank the sponsors for this event: Major Sponsor, Doug Crandall of the BCJC Group, Southwest General, UH Parma Medical Center, South Pointe Hospital, Regency Hospital and CC Regional.

After golfing the players, spouses and other AIPNO members gathered at Saffron Patch Restaurant in Shaker Heights for dinner, awards and camaraderie.
The first AIPNO health fair was held on August 24, 2019 at Willow Praise Church in Wickliffe and was sponsored by University Hospitals.

Ten Examination Booths were available. This year about 63 community members received services from Physicians in various specialties and subspecialties: Internal Medicine, Endocrinology, GYN-Women's Health, Dentistry, Cardiology, Nephrology, Pulmonology, Cardiology, Vascular Surgery, Podiatry.

Laboratory and EKG services were provided by Lake Heart Center, LLC. I thank Dr. Raj Vallabhaneni for providing these services and also being our cardiologist for the health fair. Audiology services were provided by Holly's Hearing and Eye examinations were done by Walmart.

My heartfelt thanks to all the physicians who volunteered their time: Dr. Mona Gupta, Dr. Varinder Dhillon, Dr. Dharmesh Mehta, Dr. Manjinder Kaur, Dr. Vikram Rao, Dr. Akhilesh Rao, Dr. Vijay Rastogi and Dr. Rajvinder Parmar.

Special Thanks to Rev. Larry Bogenrief and Mr. Jeff Brown for their unsolicited support.

I owe gratitude to the team of volunteers for their help.

Also we are thankful to all volunteers and Bharat Patel for Audio-Visual services.

Dr. Harbhajan Parmar
President AIPNO
Deep Brain Stimulator Withdrawal Syndrome

Department of Internal Medicine, St. Vincent Charity Medical Center, Cleveland, Ohio.

Parkinsonism hyperepyrexia syndrome (PHS) is a neurologic emergency that mimics neuroleptic malignant syndrome. It commonly presents as systemic inflammatory response syndrome (SIRS). The most common trigger for PHS is reduction or withdrawal of anti-Parkinson’s medications, especially levodopa. It was also reported in a few cases following deep brain stimulation (DBS) of the subthalamic nucleus (STN) surgery shortly after anti-Parkinson’s medication was discontinued. Rare causes of PHS include device malfunction due to battery depletion which was reported only in few occasions. This case of PHS was due to DBS battery depletion that presented as sepsis, and was successfully treated with the administration of Dopamine agonists, intravenous fluids and changing the DBS battery.

The patient is a 67-year-old female that was diagnosed with PD in 1991. Over the years, her treatment included levodopa/carbidopa and pramipexole, with poor control of her symptoms. In 2007, bilateral STN DBS was implanted, resulting in well controlled symptoms for the following seven years; however, the DBS battery was never replaced. The patient presented to the ER with high-grade fever, altered mental status, poor oral intake. She was febrile 38.5°C, had autonomic instability. Her physical exam was unremarkable except for diminished breath sounds in the lung bases. Also, neurologic exam demonstrated somnolence with lack of response to painful stimuli. Laboratory tests showed acute pre-renal failure with creatinine 123 µmol/L, hypernatremia 157 mmol/L, elevated creatine phosphokinase at 1015 U/L, leukocytosis 12,600/µL with a CRP of 1.6 mg/dl. Normal findings on lumbar puncture ruled out CNS infection. Respiratory viral swab and all other cultures came back negative. Later, the patient was started on systemic antibiotics for possible pulmonary infection. Due to continued fever and decreased consciousness, she underwent a whole-body CT which failed to localize a possible source of infection.

On day nine of admission, PHS was suspected due to non-resolving high fever, severe mucus hypersecretion, altered mental status, autonomic instability and elevated CK levels of 1615 U/L. The patient was treated conservatively; levodopa dose was tripled, with no clinical improvement. Given that the estimated DBS battery life is between three and five years, DBS withdrawal syndrome due to battery depletion was suspected. She underwent successful IPG replacement with rapid clinical improvement within a few hours. The following day, patient’s symptoms resolved, and all lab values normalized. The patient’s rigidity and mental status improved to full recovery until discharge.

Malignant DBS withdrawal syndrome, is a rare disease exclusive to patients with advanced PD symptoms resolved, and all lab values normalized. The patient’s rigidity and mental status improved to full recovery until discharge.

ABSTRACT and POSTER RESEARCH

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The Role of sCD14, sCD163, IP10, and IL-6 in Immune Dysfunction During HCV Infection and Aging with a View Into Clinical Parameters

Abstract:
Hepatitis C, a hepatic viral infection, affects millions of individuals worldwide and is recognized as a global health issue. This infection eventually progresses to a chronic liver disease state leading to complications such as cirrhosis and hepatic carcinomas. Although significant medical advances have occurred for treatment of Hepatitis C virus (HCV), many patients remain untreated and previous liver damage often persists and contributes to morbidity. It is known that chronic inflammatory conditions due to HCV infection, and others including HIV infection, diabetes mellitus, and autoimmune diseases are associated with cardiovascular disease. Understanding the underlying specific inflammatory conditions within the HCV population that may be contributing to CVD may lead to better patient health management and outcomes. Current studies in our laboratory have found a link between inflammation and poor vaccine responses in HCV and HIV infected participants. We have also found that in HCV infection AST levels are positively associated with plasma levels of sCD14 and sCD163 and serum albumin levels negatively associate with plasma IL-6 levels. In our current study, we propose that increased plasma levels of sCD14 and sCD163, both markers of monocytes/Kupffer cell activation are correlated with coronary artery disease (CAD) and red cell distribution width (RDW) in chronic HCV infection and that older age may also contribute to monocyte/Kupffer cell activation. Secondly, we will examine soluble markers of inflammation (IL-6 and IP10) and their association with liver health in HCV infection and the elderly.

Integrating CT Radiomic & Quantitative Histomorphometric Whole Slide Image Features Predicts Disease Free Survival in ES-NSCLC

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No conflicts of interest to be declared

Objectives: Integration of computer extracted quantitative features from routine radiographic as well as pathology tissue images can provide a non-invasive way to stratify patients based on their risk of recurrence in early stage non-small cell lung cancer patients treated with curative resection.

Background: Early-Stage non-small cell lung cancer (ES-NSCLC) accounts for approximately 40% of NSCLC cases, with 5-year survival rates varying between 31-49%. Radiomic textural features from pre-treatment CT scans and QH features from H&E stained WSIs have been shown to be independently prognostic of outcome. With diagnostic CT scans and surgical resection, the standard of care in ES-NSCLC, in this work we seek to take a multimodality approach using routine imaging to improve the predictive performance in determining DFS following resection.

Methods: A retrospective chart review of Stage I and II (ES-NSCLC) pts undergoing surgical resection between 2005-14 with available CT and resected tissue yielded 70 pts. A total of 248 radiomic CT textural features from inside the tumor (Intratumoral – IT) and outside the tumor (Peritumoral – PT) and 242 QH features related to the nuclear shape, texture and spatial orientation and architecture from H&E WSI were extracted. We developed two risk models, Radiomic and QH using the most stable, discriminative and uncorrelated features from CT and WSI respectively determined by Lasso-regularized Cox regression to predict Disease free survival (DFS). Model performances were analyzed using Hazard Ratios (HR), Concordance Index (C-index) and Decision curve analysis. We built a nomogram to calculate the DFS based around the individual models as well as an integration of the QH and Radiomic models.

Results: Top 6 Radiomic features included 2 IT and 4 PT features from the Haralick and Collage families. The QH model comprised 6 nuclear shape and graph features. In predicting DFS, While the Radiomic model had a HR of 2.4 (p <0.01) with C-index = 0.67, the QH model had HR = 3.1 (p <0.01) with C-index = 0.74. Integration of the Radiomic and QH model yielded a C-index of 0.78 (p< 0.01). After addition of prognostic clinical factors (LVI, AJCC stage) to the model, the C-index was 0.80, almost doubling either modalities alone. The constructed nomogram visualized the apparent benefits of the three models while with a decision curve clearly demonstrated the increased benefit of combined integrated model.

Conclusion: Integration of CT-derived radiomic and tissue-derived QH features was found to show improved performance in predicting DFS when compared to either radiomics or QH alone.

Figure: a) Nomogram representing integrated Red-Path risk score for predicting DFS; b) Decision curve analysis showing net benefit for the integrated model. The combined Red-Path-clinical model had the highest net benefit; c) QH nuclear shape feature and radiomic peritumoral Haralick feature heatmaps showing difference between high-risk and low-risk groups; d) Table for individual prognostic clinical factors, and Integrated (Red-Path and Red-Path-Clinical models.)
**ABSTRACT and POSTER RESEARCH**

**Novel CT Based Radiomic Features are Prognostic and Predictive of Benefit of Chemoinmunotherapy in Advanced Non-Squamous NSCLC**

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No conflicts of interest.

**Objectives:** Non-invasive CT-radiomic features can predict response and overall survival to novel chemoinmunotherapy in advanced non-squamous carcinoma of the lung

**Background**

Carotid dissection, petemestrosis and pembrolizumab (C/P/P) is currently approved for patients with advanced non-squamous carcinoma of the lung (NS-NSCLC) based on superior survival outcomes noted in KEYNOTE-189. Since clinical benefit was observed across all PD-L1 expression categories, there are currently no robust predictive biomarkers that can identify subsets of patients likely to derive benefit from this regimen. We sought to evaluate whether radiomic features extracted from within and outside the node on pre-therapy CT scans could predict response to C/P/P.

**Method**

We retrospectively identified 52 patients with stage IV NS-NSCLC who received C/P/P. Of these, 6 were excluded because of non-evaluable thoracic lesions. Lung tumors were contoured on 3D SILICOR software by an expert reader. Textural and shape radiomic features were extracted from intrapulmonary regions using MATLAB® 2018b platform (Mathworks, Natick, MA). The primary endpoint of our study was RECIST response and secondary endpoint was overall survival (OS). A linear discriminant analysis classifier (LDA) was used to predict response across 100 iterations of 10-fold cross validation in the dataset. Performance of classifier on response was measured by area under receiver operating characteristic curve (AUC). To build the multivariate radiomic signature for OS, least absolute shrinkage and selection operator (LASSO) Cox regression model was used and a feature was found to be selected at each iteration of CV. Kaplan-Meier survival analyses according to the radiomics signature risk score showed significance in survival across the high-risk and low-risk groups based on median risk score.

**Result**

The top five radiomic features (intrapulmonary textural patterns) predictive of response to C/P/P were identified by HRMR feature selection method. LDA classifier using these features can discriminate responders from non-responders with an AUC of 0.77 ± 0.05. The radiomic risk score was calculated using a linear combination of top six selected features from LASSO with corresponding coefficients. In a multivariate Cox proportional hazards model using a combination of demographic and radiomic features, the radiomics signature was found to be significant in OS (HR 10.42; 95% CI: 4.18-26.13; p = 4.92e-07). Kaplan-Meier survival analyses according to the radiomics signature risk score showed significantly worse survival in the high-risk category.

**Conclusion**

Textural features within and outside the node on pre-treatment CT images of patients with NS-NSCLC treated with C/P/P were predictive of responses and OS. Additional validation of these quantitative image-based biomarkers in independent cohorts is warranted.

**Dextran-sulfate plasma adsorption lipoprotein apheresis in drug resistant primary focal segmental glomerulosclerosis patients: Results from a prospective, multicenter, single-arm intervention study**

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There are no conflicts of interests to be declared by any author.

**Background**

Focal segmental glomerulosclerosis (FSGS) causes end stage renal disease (ESRD) in significant proportion of patients worldwide. Primary FSGS carries poor prognosis and management of FSGS patients, refractory to standard treatments or resistant to steroids, remains a major challenge. Lipoprotein apheresis is a therapeutic approach for drug resistant primary FSGS and post-renal transplant primary FSGS recurrences.

**Objectives:** To examine the safety and probable benefit of apheresis treatment using Liposorber® LA-15 system in patients with nephrotic syndrome (NS) in post renal transplant children.

**Material and methods:** Prospective, multicenter, single-arm intervention study using Liposorber® LA-15 system. Patients ≥21 years old with drug resistant or drug intolerant NS secondary to primary FSGS with glomerular filtration rate (GFR) ≥60 ml/min/1.73m² or post-renal transplant patients ≥21 years old with primary FSGS associated NS were included in the study. Each patient had 12 dextran-sulfate plasma adsorption lipoprotein apheresis sessions for 9 months. Patients were followed up at 1, 3, 6, 12 and 24-months.

**Results:** Of 17 patients enrolled, six were excluded from the outcome analysis (protocol deviations). Three patients were lost to follow-up immediately after completion of apheresis. At 1-month follow-up, 1 of 7 patients (14.3%) attained partial remission of NS while 2 of 4 subjects (50%) and 2 of 3 subjects (66.7%) had partial/complete remission at 3- and 6-months follow-up, respectively. One of two patients followed up for 12 months had complete remission and one patient had partial remission of NS after 24 months. Improved or stable eGFR was noted in all patients over the follow-up period.

**Conclusion:** Our study showed improvement in response rates to steroids or immunosuppressive therapy and induced complete or partial remission of proteinuria in some of the patients with drug resistant primary FSGS. The main limitation of our study was the small number of subjects and high dropout rate.

**TBI: Outcomes after decompressive craniectomy in pediatric patients**

*Authors:* Tsuiee Chen, MD; Pediatric Neurosurgery, Alexander Gibbons, MD; Pediatric Surgery; Saynaja Datta, Northeast Ohio Medical University, Dalia Alkhawaga; Northeast Ohio Medical University

**Abstract:**

Our study showed improvement in response rates to steroids or immunosuppressive therapy and induced complete or partial remission of proteinuria in some of the patients with drug resistant primary FSGS. The main limitation of our study was the small number of subjects and high dropout rate.

**TBI: Outcomes after decompressive craniectomy in pediatric patients**

Tsuiee Chen, MD; Pediatric Neurosurgery, Alexander Gibbons, MD; Pediatric Surgery; Saynaja Datta, Northeast Ohio Medical University, Dalia Alkhawaga; Northeast Ohio Medical University

**Introduction:** Decompressive craniectomies are procedures frequently performed in the pediatric population for accidental trauma, non-accidental trauma, brain abscesses, strokes, and other deadly causes of intracranial hypertension. The objective of this study is to determine if there is any difference in morbidity or mortality between the various indications for decompressive craniectomy in pediatric patients, as well as describe our sub-population of TBI patients with a larger sample size than previously explored.

**Hypothesis:** Our hypothesis is that patients who undergo the operation for accidental trauma and infection will have better outcomes than those whose etiologies had a stroke component: non-accidental trauma, strokes, and ruptured vascular malformations.

**Methods:** This was a retrospective record review, utilizing a convenience sample from Akron Children's Hospital. The following variables were collected and analyzed: patient demographics, indication for craniectomy, pre/post-operative Glasgow Coma Scale(GCS) and intracranial pressure(ICP), pre-op pupil exam, injury severity score, CT findings, mortality rate/death of cause and Glasgow Outcome Score (GOS) at last follow-up exam.

**Results:** This study included 135 patients of which 52 underwent a craniectomy, with the remainder undergoing a craniotomy. Patients who had a stroke component were 4.23 times more likely to die following the craniectomy (p<0.036) and were 21 times more likely to have unfavorable Glasgow Outcome Scores (GOS) after the surgery (p<0.0001). The median GOS was 3, indicating severe disability, for stroke-like patients at their most recent follow-up and a 5, low disability, for non-stroke-like patients.

**Conclusion:** This study found that patients who presented with a stroke-like component were more likely to have unfavorable GOS or die after the surgery. The secondary complications from a stroke leave these patients vulnerable to poorer outcomes following surgery. Future studies should investigate how early interventions in these patients can improve outcomes, decrease mortality and impact discussions with families regarding prognosis.

**Short-chain fatty acids regulate regulatory T cells and intestinal pathology during oral mucosal infection.**

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**Abstracts:**

Complex interactions between the microbial flora and the host exert sophisticated means of immune tolerance and regulation mechanisms. One mechanism is by inducing the accumulation of regulatory T (Treg) cells. Here we show that the depletion of resident bacteria using antibiotics (Abx) causes oral and gut immunopathology during Oropharyngeal Candidiasis (OPC) infection. Abx treatment causes decrease in the frequency of Foxp3+ regulatory cells (Tregs) and IL-17A producing T cells, with a concomitant increase in oral tissue pathology. Although oral C. albicans (CA) is commonly controlled in the oral cavity, Abx treatment led to CA dependent oral and gut inflammation. The combination of short chain fatty acids (SCFA) partially controlled the pathology in Abx treated mice, correlating to an increase in the frequency of Foxp3+ IL-17A+, and Foxp3+IL-17A+ double positive (Tregs) in tongue and oral draining lymph nodes. SCFA enabled the restoration of Th17 cells and Treg cells and oral infection clearance, but did not reverse weight loss. Because SCFA treatment did not fully reverse the gut inflammation, it is evident that resident microbiota have SCFA independent homeostatic mechanisms in gut mucosa. We also found that SCFA potently induce Foxp3 and IL-17A expression in CD4+ T cells depending on the cytokine milieu in vitro. Taken together, our data reveal that SCFA derived from resident bacteria play a critical role in controlling gut immunopathology by regulating T cell cytokines during oral mucosal infections.

**Conflicts of Interest:** The authors declare no conflict of interest.

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Could Pre-discharge BNP Predict 30 Day Readmission Rate?
March 2018 – March 2019
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Objective
Examine the correlation between BNP prior to discharge and 30-day readmission rates for patients with congestive heart failure.

ABSTRACT
Background
BNP is a hormone secreted by cardiac muscle cells of the ventricles in response to stretching caused by ventricular blood volume. It is currently being utilized in diagnosis of acute exacerbation of heart failure as well as for prognostic value post myocardial infarction. BNP levels change during heart failure exacerbation as well as after therapy (diuresis). Could pre-discharge BNP correlate with risk of 30-day readmission?

Method
We conducted a prospective observational study on patients admitted with acute decompensated heart failure who received standard treatment based on current guideline for management of CHF exacerbation. BNP was obtained at the time of admission as well as on the day of or prior to the day of discharge. Clinsync was used to follow up patient’s readmission within 30 days to our facility or any other facility within Ohio.

Results
Of 108 enrolled patients, 94 were included for analysis. 58 (54%) patients were evaluated with a pre-discharge BNP and 50 (46%) did not have pre-discharge BNP. Of the 58 patients who had pre-discharge BNP done, 18 patients were readmitted within 30 days and 40 patients were not readmitted within 30 days. The average admission BNP of the 30-day readmission group was 1375.32 vs 1050.81 for those not readmitted. The average discharge BNP of the readmitted patients was 1005.95 vs 623.28 for those not readmitted. The percentage BNP changes (admission to pre-discharge) in both groups were found to be statistically insignificant (p-value=0.418).

Conclusion
Pre-discharge BNP did not objectively predict 30-day readmission rate in patients with acute decompensated heart failure. Though there was no statistical significance in the percentage change in BNP in 30 day readmitted group vs non admitted group, the mean pre-discharge BNP was found to be higher in patients readmitted within 30 days.

Keywords: CHF, BNP, Re-Admission, Pre-discharge
Impaired saccade adaptation: Result of distortion in cerebellar output
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Objective: To investigate the role of the cerebellum in pathophysiology of motor learning in Cervical Dystonia.

Background: Three million people worldwide suffer from dystonia and there are only a few effective treatments for dystonia because of poorly understood pathogenesis. Traditional hypothesis for Cervical Dystonia (CD) has focused on the basal ganglia, while CD has been found in patients with cerebellar lesions. We hypothesized that patients with ataxia predominant form of CD would lack the ability to adaptively modulate their saccade amplitude in motor adaptation tasks although their eye movements were clinically normal.

Methods: The study comprised of 12 patients with ataxia predominant CD and 3 healthy controls. The experiments were performed when the subjects were experiencing maximal therapeutic benefit with botulinum toxin and tremor pharmacotherapy. The horizontal and vertical eye positions were recorded with high-resolution video oculography technique at 500 Hz with an angular resolution of 0.1°. The eye positions were calibrated in vivo, prior to initiation of the experiment. We performed two experiments: a) open-loop trials to set the baseline i.e to assess changes in saccade gain as an index of level of saccade adaptation, b) motor adaptation trials which consisted of right and left double-step saccade adaptation experiments. These two experiments allowed us to analyze motor learning over slow and fast time scales, which was done by i) evaluating kinematic parameters of primary saccades - amplitude, peak velocity, acceleration and deceleration, ii) timing parameters - latency, duration, time to peak-velocity, acceleration, and deceleration.

Results: The results showed that in all 12 patients there was impaired saccadic adaptation over both time scales, no retention over slow time scales and minimal learning over the fast time scales. Conclusion: These results seem to suggest that distorted cerebellar output is a pathophysiological mechanism behind CD and not the lack of cerebellar activity as previously thought.

Effect of Educational Pamphlet on Advance Directive Completion Rates
Rahul Jain, Jennifer Schill RN MSN, Nancy Hedberg RN BSN

Abstract: Advance directives (AD) are documents that provide a statement of a person’s wishes about medical treatment including a living will and power of attorney. This document provides caregivers with a clear set of instructions on the medical preference of patients in case they are unable to speak and decide for themselves. Normally, surgical patients are asked if they would like to complete an AD at the Pre-Anesthesia Consultation Clinic (PACC). However, many patients decline the offer and decide not to complete an AD. Thus, there is overall a low percentage of patients who have AD document completed. This study analyzes the AD completion rates of two different CCF PACC units over past several months. In this study, an educational pamphlet was designed and created to be presented to patients to inform them about the benefits of having an AD on file. Patients were presented with the pamphlet in waiting areas and in their exam rooms prior to being asked if they would like to fill out an AD. This was done to increase the AD completion rates at the two PACC units. The educational pamphlets will continue to be presented to patients at PACC units in an effort to increase AD completion rates.

Prostate cancer is the second leading cause of death in the United States males with estimated 174,650 cases to be diagnosed and 31,620 deaths alone in 2019. Treatments of prostate cancer such as radiation therapy and chemotherapy are often physically, mentally, and financially taxing on the patient. Emerging research has shown that the imbalance of matrix metalloproteinases (MMPs) is responsible for the uncontrolled growth of prostate cancer. During prostate cancer growth, the reversion-inducing cysteine-rich protein with kazal motifs (RECK) gene is under expressed through epigenetic modifications which allows the unrestricted expression of MMPs. RECK is critical to preventing cancer growth as it is a tumor suppressor and inhibits metastasis and angiogenesis. Green Tea polyphenols (GTP) has recently gained attention for its anticancer properties. GTP and its major constituent, EGCG can reverse epigenetic changes. Thus, we hypothesize that GTP can reduce prostate cancer growth through the reactivation of RECK. Initial experiments demonstrate that human prostate cells viz. RWPE, C42B, and RC77T expressed high levels of RECK whereas it was under-expressed in LNCaP, 22Rv1, DU145, PC-3, PC-3M, and DuPro cells. We selected DuPro and LNCaP cancer cells for further analysis and were treated with 3-Deazaneplanocin A (DZNep), Trichostatin A (TSA), a combination of DZNep, TSA, GTP and EGCG. A 72-h treatment time of GTP and EGCG showed a significant decrease in the growth of DuPro cells as compared to the control. GTP and EGCG had a similar effect on cell growth as TSA, a histone deacetylase inhibitor and DZNep, an EZH2 inhibitor. The effects of GTP and EGCG on RECK in DuPro and LNCaP cells were also tested at 24 and 48 h intervals. Although DuPro cells does not exhibit much change after 24 h, both cell lines demonstrated an increase in RECK expression after 48 h. Our studies display an increase in RECK expression and a decrease in cell growth after treatment with GTP and EGCG. In conclusion, GTP and EGCG led to reversal of the expression of RECK, and this effect was superior to DZNep and TSA having significant effect on its reactivation. Further mechanistic studies with green tea are warranted.
Sanjay Jinka

Impaired cognitive function and Alzheimer’s Disease related pathology associate with reduced O-GlcNAc transferase expression in a mouse model of metabolic syndrome
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Objective: To examine the link between cognitive performance, AD-related pathology and O-GlcNAc signaling in MetS KKAy mice

Risks of Alzheimer’s disease (AD) is increased >1.5 times in metabolic syndrome (MetS) patients. Hyperphosphorylated tau (pTau), is an important hallmark of AD pathology. Recent studies in AD patients and AD mouse models suggest a putative link between tau pathology and cerebral glucose hypometabolism, characterized by reduced O-linked N-acetylglucosamine protein levels. However, the role of O-GlcNAc signaling in etiology of AD in MetS is poorly understood. The goal of the present study was to investigate the link between AD-related pathology and cognitive function and O-GlcNAc transferase (OGT), a key regulator of O-GlcNAc signaling, in a mouse model of MetS (KKAy-/-). Obese diabetic (KKAy-/-), lean prediabetic (KKAy+), and normal C57BL6/J control mice weaned at 4 weeks of age underwent periodic body weight testing, random blood glucose monitoring, and behavior testing at 12+ months of age followed by plasma and brain tissue (frontal cortex and hippocampus) harvest. Obese diabetic (KKAy-/-) mice exhibited significant impairments in novel object recognition and spontaneous activity vs. KKAy+ and C57BL6/J mice, indicative of cognitive deficits. Immunoblotting of brain tissue lysates revealed increased pTau expression coupled with reduced pO-GlcNAc and pERK expression in MetS KKAy-/- compared to non-MetS KKAy+ mice. Notably, enhanced ptau level was accompanied with attenuated OGT expression in brain tissue lysates of MetS KKAy-/- mice vs. non-MetS KKAy-/. Together, these data demonstrate a direct link between cognitive dysfunction, hyperphosphorylated tau and OGT expression in MetS mice. Overall, our study suggests a novel role of OGT in AD etiology associated with MetS.

Randol Kennedy

Incidental Complicated Atrial Septal Defect in an Elderly Patient – A mimicry of Congestive Heart Failure

Abstract
Introduction
The sequelae of left to right shunt leading to pulmonary hypertension is a chronic, age related process. Therefore a complicated ASD can be incidentally discovered in older patients, as they can be easily mistaken for a more common cause of dyspnea, such as congestive cardiac failure or myocardial infarction.

Case Description
We present a 64 year old female with chronic obstructive pulmonary disease, hypertension, depression and peripheral arterial disease who presented with ‘a few days’ of palpitations, associated with exertional dyspnea, orthopnea and paroxysmal nocturnal dyspnea. Social history is significant for a 22 pack year tobacco smoking history.

Her vitals in the emergency department were as follows: blood pressure 175/116 mmHg, pulse 122, temperature 36.5°C, respiratory rate 20 with oxygen saturation 95% on room air. Cardiovascular exam revealed no jugular venous distention, regular pulse rate and normal heart sounds without murmurs or gallops. There was no lung crepitations or pedal edema.

Initial investigations revealed a troponin of 1.420 ng/mL with an electrocardiogram (EKG) showing atrial tachycardia, incomplete right bundle branch block and right ventricular hypertrophy with right axis deviation. Brain natriuretic peptide (BNP) was 947.5 pg/mL. A portable chest X-ray showed cardiomegaly with significant right atrial enlargement. The patient was initially assessed as having acute congestive heart failure, possibly as a result of non ST elevated myocardial infarction (NSTEMI) and was transferred to the ICU with plans for urgent catheterization and echocardiogram.

A transthoracic echocardiogram (TTE) revealed a large atrial septal defect (ASD) with bidirectional shunting, severe pulmonary hypertension and a severely dilated right atrium and ventricle. These were further investigated and confirmed with a transesophageal echocardiogram (TEE).

Therefore, the patient’s presentation was deemed secondary to ASD complicated by severe pulmonary hypertension. She was then transferred to a tertiary institution where she was considered for ASD closure. A cardiac magnetic resonance imaging/ angiogram (MR/MRA) was performed which showed the ASD secundum - measuring 23x27 mm. The pulmonary flow/ systemic flow (Qp/Qs) was measured to be 4.0. Right heart catheterization and closure of the ASD was performed, with improvement of chamber pressures seen post closure.

Discussion
ASD is the second most common congenital heart defects in adults. Exertional dyspnea and fatigue are the most common initial presenting symptoms, which can suggest significant shunting. These symptoms, having an insidious onset, may not be evident until late adult life, with some patients being 60 years and over. As these symptoms overlap with a variety of common diagnoses such as congestive heart failure and myocardial infarction, patients with a first time presentation of symptomatic ASD can therefore be a diagnostic dilemma, such as with our patient.

References
ABSTRACT and POSTER RESEARCH

Natasha Kesav

ABSTRACT TITLE: Novel automated processing technique for standardization and normalization of fluorescein angiography images in patients with uveitis

ABSTRACT BODY: Purpose: Fluorescein angiography (FA) is an important diagnostic modality in ocular inflammation and uveitis used to characterize pathology in the retinal vasculature. However, the use of FA is currently limited due to lack of objective quantitative assessment. This study demonstrates the potential of a novel quantitative assessment of FA images using automated processing techniques.

Methods: Patients enrolled in the Uveitis/Intraocular Inflammatory Disease Biobank (iBank) protocol at the National Eye Institute underwent widefield FA using the Optos 200Tx (Optos plc, Dunfermline, United Kingdom). Images were then retrospectively downloaded, removed of patient identifying information, and exported to MATLAB analysis software. The images were subsequently processed using a modified Laplacian of Gaussian (LoG) filter to the extract branch pattern and orientation information, followed by local image intensity normalization and calculation.

Results: Using the methodology described, standardized computer algorithms were successfully developed for a set of digitized fluorescein angiograms. Figure 1 shows a sample image from a patient with uveitis and diffuse vascular leakage. Figure 2 shows the same image after local normalization with the extracted branch pattern overlaid.

Conclusions: Our method of branch pattern extraction provides a way to standardize and extract the vasculature using FA images with a goal of quantifying changes in vascular leakage. This technique can potentially be used to provide a reliable alternative to the current subjective clinician-dependent measurement of vascular leakage or ischemia in uveitis and other diseases with retinal vascular pathology. Additionally, this novel approach can be used to further investigate whether there are unique phenotypes of branch patterns between healthy controls and patients with uveitis.

Figure 1: Shows original cropped FA image in a patient with uveitis and vascular leakage

Figure 2 shows the local normalized image with branch pattern overlaid.

Title: Impact of Auditory Experience on Speech Recognition in Adult Cochlear Implant Users

Authors: Kesav, N., Tamaki, T., Moberly, A.
Institution: The Ohio State University; Eye and Ear Institute

Abstract: Different types of auditory experiences, such as musical training and multilingual exposure, have been shown to contribute to significant advantages in speech perception for normal-hearing individuals and can impact several domains of hearing and physiological processes. Individuals with previous exposure to complex sounds, voices, and instruments via musical training tend to process dynamic auditory features better, demonstrated by the observed ‘musician effect’ in many auditory tasks. Similarly, early exposure to multiple languages has been associated with structural brain changes, and individuals demonstrate enhanced performance on speech perception tasks. Cochlear implants (CIs) are prosthetic devices that restore some sense of hearing to profoundly deaf individuals. CIs are particularly beneficial in quiet listening environments, but CI users are disadvantaged by degraded auditory input in adverse conditions. Further, individual CI users differ greatly in their speech understanding abilities. However, the impact of prior auditory experience on CI users is still unknown. In the current study, we present a comprehensive review of how music and language experience affect speech perception in adults, and the relationship between auditory experience and enhanced speech perception in adverse listening conditions. We further discuss how these auditory experiences may help listeners compensate for hearing loss or a CI. Then, we explored the music and language exposure of experienced CI users with good speech perception outcomes, and the potential contributions of their prior auditory experience to observed variability in outcomes. An analysis of language background survey data was done to determine the relationship between musical and language experience and speech perception performance in individuals with CIs. Findings from the current study will be a first step towards understanding the relationship between prior auditory experience and CI users, and can give insight to potential treatments, predictive technologies or diagnosis for those with hearing issues.

Comparing the Effects of Apigenin against a Derivative Apigenin Compound On Metastatic Prostate Cancer Cell Line

Anmol Kumar1, Che Jarvis2, Eswar Shankar3, Andreas G Tzakos3, Sanjay Gupta2

1The Ohio State University, 2University School, 3Department of Urology, Case Western Reserve University, Cleveland, Ohio 44106, 4Department of Chemistry, University of Ioannina, Greece.

Prostate cancer is the second most common cancer and the second leading cause of cancer-related deaths in the United States men due to its metastatic progression as cancer cells start to spread to other organs eventually leading to organ failure. The standard of care for advanced-stage cancer remains specifically on high intensity focused radiotherapy and chemotherapy involving new investigational agents. Our lab has conducted extensive research on apigenin (4′,5,7-trihydroxyflavone), a phytochemical, that has shown to possess anticancer properties. Apigenin has a short life span in systemic circulation and is unavailable to the target tissue due to its fast degradation. We envision developing a derivative to make apigenin more efficient as a prodruk attaching a phosphate group through a linker easily cleaved by alkaline phosphatase (ALP). ALP is an enzyme more commonly known for its non-specific bone turnover marker for evaluation during chemotherapy having ability to predict the survivability of men with advanced prostate cancer. Human prostate cancer metastatic cell lines DU145, PC-3M and its parental counterpart, PC-3 were exposed to apigenin-ALP (AA-ALP) and was compared it to the parental compound, apigenin. Firstly, we measure the constitutive levels of ALP in these cells. PC-3M and PC-3 cells displayed higher concentrations of ALP compared to DU145 cells. The data provide evidence that AA-ALP is more efficacious than apigenin in inhibiting proliferation and metastatic progression in cancer cells possessing high levels of ALP. Further detail studies are warranted.
Incidence, Associated Factors and Outcomes of Posterior reversible encephalopathy syndrome (PRES) in Pediatric Hospitals.

Jasmine Khatana, Krishna Kishore Umamathi, Harshitha Dhanpalreddy, Aravind Thavamani.

Metro Health Medical Center, Affiliated with Case western reserve University, Cleveland.

Background: PRES is a recently recognized distinct clinic-radiological disease over the recent decades, characterized by potentially reversible vasogenic edema of brain with preferential involvement of the posterior cortex. Clinical signs include cephalalgia, visual disturbances, alteration in mental status, focal neurological deficits and seizures. PRES has been reported in children, but most data are from single center retrospective studies and focused on a specific subset of patients such as hypertension, renal insufficiency, sickle cell disease, organ transplantation etc. However, the incidence in the general pediatric population is not known.

Objective: To analyze the incidence and associated contributing factors of PRES among inpatient pediatric hospitalizations.

Design/Methods: We analyzed the data from Agency for Healthcare Research and Quality (AHRQ) sponsored 2016 Kids' Inpatient Database (KID). The KID 2016 was created from a stratified, random sample of discharges from all community, non-rehabilitation hospitals which amounts to 88% of the total hospitals in US. Kid databases are released almost every 3 years and for this study we analyzed 2016 KID database for PRES related hospitalization as it employed ICD 10 CM for coding purpose and has a specific code for PRES (No available in ICD9 CM codes). Based on literature review, we identified 10 factors/diagnosis associated with PRES and then queried the database for the presence or absence of these variables in patients with PRES. Common childhood cancers including leukemia/lymphomas, hepatoblastoma, neuroblastoma, primary CNS tumors and osteosarcoma were included for analysis. Our study received institutional review board approval from the Metro Health Medical Center, Affiliated with Case western reserve University, Cleveland.

Results: A total of 825 pediatric hospitalizations were observed during the study period. Table 1 describes the baseline demographics of the study population. Adolescents and females are more prone to develop PRES. As described in literature, we identified a significant association between PRES and hypertension as well as renal disorders (Table 2). Using conditional multivariable logistic regression, adjusted odds ratios and CI were determined for all associated comorbid conditions (Table 3).

Conclusion(s): This is the first study to evaluate various comorbid conditions/risk factors in a large cohort of pediatric patients. Females, adolescents, hypertension, renal disorders are associated with PRES. Knowledge about these risk factors is essential for identifying the at-risk population and paves way for more research to understand this complex condition.

<table>
<thead>
<tr>
<th>Table 1: Demographic data of the study population.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables</td>
</tr>
<tr>
<td>Population (weighted estimates)</td>
</tr>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Race</td>
</tr>
<tr>
<td>White</td>
</tr>
<tr>
<td>Black</td>
</tr>
<tr>
<td>Hispanic</td>
</tr>
<tr>
<td>Others</td>
</tr>
<tr>
<td>Missing</td>
</tr>
<tr>
<td>Insurance</td>
</tr>
<tr>
<td>Public</td>
</tr>
<tr>
<td>Private</td>
</tr>
<tr>
<td>Uninsured</td>
</tr>
<tr>
<td>Median Household Income</td>
</tr>
<tr>
<td>$41,999</td>
</tr>
<tr>
<td>$52,000-64,999</td>
</tr>
<tr>
<td>$65,000-99,999</td>
</tr>
<tr>
<td>50,000 or more</td>
</tr>
</tbody>
</table>

Table 2: Univariate analysis of factors associated with PRES.

<table>
<thead>
<tr>
<th>S.NO</th>
<th>Factors</th>
<th>PRES</th>
<th>Controls</th>
<th>Odds</th>
<th>Lower CI</th>
<th>Upper CI</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Race</td>
<td>0.003</td>
<td>0.756</td>
<td>0.758</td>
<td>&lt;0.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Hispanic</td>
<td>0.002</td>
<td>0.002</td>
<td>0.003</td>
<td>&lt;0.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Black</td>
<td>0.002</td>
<td>0.002</td>
<td>0.003</td>
<td>&lt;0.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Other</td>
<td>0.002</td>
<td>0.002</td>
<td>0.003</td>
<td>&lt;0.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Missing</td>
<td>0.002</td>
<td>0.002</td>
<td>0.003</td>
<td>&lt;0.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Malignancy</td>
<td>0.002</td>
<td>0.002</td>
<td>0.003</td>
<td>&lt;0.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Seizures</td>
<td>0.002</td>
<td>0.002</td>
<td>0.003</td>
<td>&lt;0.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Systemic Connective Tissue Disorder</td>
<td>0.002</td>
<td>0.002</td>
<td>0.003</td>
<td>&lt;0.001</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3 shows the adjusted odds ratio (aOR) and confidence intervals of factors associated with PRES.

<table>
<thead>
<tr>
<th>Variables</th>
<th>aOR</th>
<th>Lower Confidence Interval</th>
<th>Upper Confidence Interval</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (in years)</td>
<td>1.00</td>
<td>1.00</td>
<td>0.99</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Race</td>
<td>0.005</td>
<td>0.005</td>
<td>0.005</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Black</td>
<td>1.23</td>
<td>1.23</td>
<td>1.23</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Hispanic</td>
<td>0.82</td>
<td>0.82</td>
<td>0.82</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Other</td>
<td>1.01</td>
<td>1.01</td>
<td>1.01</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Solid Transplantation</td>
<td>1.4</td>
<td>1.4</td>
<td>1.4</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Bone Marrow Transplant</td>
<td>1.56</td>
<td>1.56</td>
<td>1.56</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Hypertension</td>
<td>9.2</td>
<td>9.2</td>
<td>9.2</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Renal Disorder</td>
<td>13.1</td>
<td>13.1</td>
<td>13.1</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Malignancy</td>
<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Systemic Connective Tissue Disorder</td>
<td>3.7</td>
<td>3.7</td>
<td>3.7</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Blood Transfusion</td>
<td>1.8</td>
<td>1.8</td>
<td>1.8</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Hypogammaglobulinemia</td>
<td>2.1</td>
<td>2.1</td>
<td>2.1</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Anemia</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Seizures</td>
<td>1.6</td>
<td>1.6</td>
<td>1.6</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Sickle Cell Anemia</td>
<td>2.9</td>
<td>2.9</td>
<td>2.9</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Seizures</td>
<td>0.3</td>
<td>0.3</td>
<td>0.3</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

Table 4: Outcomes (LOS, in hospital deaths, disability costs) in PRES in comparison with all inpatient discharges.

<table>
<thead>
<tr>
<th>S.NO</th>
<th>Parameters</th>
<th>PRES</th>
<th>Controls</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LOS Low +/- SE</td>
<td>18.28 +/- 1</td>
<td>4.2 +/-.05</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>2</td>
<td>Charge</td>
<td>3092375+/-23726</td>
<td>42855+/-80.5</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>3</td>
<td>Severity</td>
<td>No Loss of function</td>
<td>0</td>
<td>1491</td>
</tr>
<tr>
<td></td>
<td>Minor</td>
<td>Censored</td>
<td>971166</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
<td>37</td>
<td>80908672</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Major</td>
<td>370</td>
<td>338709</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Extreme</td>
<td>416</td>
<td>93356</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Disposition</td>
<td>Home</td>
<td>679</td>
<td>2129950</td>
</tr>
<tr>
<td></td>
<td>Home with home health</td>
<td>71</td>
<td>58919</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Transfer</td>
<td>44</td>
<td>84074</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Mortality</td>
<td>2682</td>
<td>2682</td>
<td>2682</td>
</tr>
</tbody>
</table>

Risk of various factors associated with PRES in hospitalized children.
50 years Without Complications After Ileocolic Transposition

Pimen Kurashvili, Ryan Choudhury, Ninamdi Madubium, Hankirsha Ponnam, Keyvan Ravakhab
St. Vincent Charity Medical Center, Cleveland, Ohio
Contact email: pimenkurashvili@gmail.com

Objectives: Introduce physicians and caregivers to patients living with previous ileocolic transposition and the complications associated with the procedure.

Abstract

Ileocolic transposition with esophagoplasty is performed after caustic injury of the esophagus. Mortality is less than 5%. Postoperative frequent complications include cervical anastomotic leakage, graft necrosis, and anastomotic strictures early in the course and late complications like anastomotic strictures and graft redundancy.

Case

A 65 year old gentleman was seen in the emergency department for nausea and vomiting for one day with history of heroin and cocaine abuse. Withdrawing symptoms from opiates was suspected cause of this patient’s symptoms, but upon imaging a chest x-ray showed herniation of what appeared to be abdominal contents into the mediastinum.

Upon further questioning of the patient once improved, he revealed esophagoplasty performed at age 16 due to ingestion of caustic agent. He has been living with an ileocolic transposition for the past 40 years without significant complications.

Esophagogram was performed and showed significant delay in transit of barium from the pharynx to the stomach, mostly relating to pooling of contrast within large haemorrhage in the intrathoracic colon without high-grade strictures and absence of peristalsis.

Discussion

Complications are frequent in these patients. In this case report we present a gentleman who has been free of complications for almost 50 years. Common complications that patients with this procedure are expected however quality of life for most patients is acceptable.

Key Points:

- Identify ileocolic transposition on imaging
- Know the complications associated with ileocolic transposition
- Importance of taking a detailed surgical past and medical history

Title: Acute kidney injury in children and adolescents admitted for acute renal colic due to kidney stones

Authors: Kajal Madan1, Brittain Smith2, Rahul Mal3, Jay Patel4, Kirsten Kusumi MD5 Northeast Ohio Medical University1, Trine University2, Akron Children’s Hospital3 Email: lmdanil@neomed.edu

Objectives: To identify the prevalence of acute kidney injury in a pediatric population admitted for renal colic.

Abstract:

- **Background**: Kidney stones are increasing in children [1,2]. Acute kidney injury (AKI) refers to a rapid decline in kidney function and stones are an uncommon cause of AKI in adults but may be more common in children[3].

- **Methods**: A retrospective chart review of patients presenting to Akron Children’s Hospital from 1/2008-12/2017. Patients were identified by ICD 9 and 10 codes for nephrolithiasis and included if they had stone disease confirmed by 1) documentation of known kidney stones by radiography or ultrasound or 2) CT or renal ultrasound positive for stones. Inpatient admissions were analyzed if specifically for kidney stones.

- **Results**: 313 inpatient admissions were documented. 18 patients were positive for AKI (AKI+), 91 patients were negative for AKI (AKI-), and 97 patients lacked adequate data for AKI assessment. 30 AKI+ patients (26.1%) received a renal ultrasound (RUS) compared to 12 AKI- patients (66.7%) (p = 0.001). 16 AKI+ patients (13.9%) had unilateral obstruction vs. 7 AKI+ patients (38.3%) (p = 0.017), 86 individuals of the AKI+ group (74.8%) were prescribed NSAIDS compared to 13 AKI- individuals (72.2%) (p = 0.778).

- **Conclusion**: More RUS were obtained in the AKI+ group than the AKI- group, and AKI+ patients had a significantly higher occurrence of unilateral obstruction. There was no significant difference in the rate of NSAIDS administered to patients between the AKI+ and AKI- groups. Nephrolithiasis may be a common cause of AKI in children rather than adults which is concerning the known association of kidney stones with chronic kidney disease in adults.

References:


No authors have any potential conflicts of interest.
**Title:** Does Trisomy 12 in Chronic Lymphocytic Leukemia Present in Advanced Stage?

**Authors:** Mythri Mudreddy, Ryan Choudhury, Shafe Greane, Pimen Kurashvili, Poomnanal Palaparty, Keyvan Ravakhah

**Affiliation:** St. Vincent Charity Medical Center

**Contact Email:** mythrireddy.m@gmail.com

**Abstract:**

Background: Chronic lymphocytic leukemia (CLL), a mature B cell neoplasm predominantly affects older adults, median age at diagnosis approximately 72 years. Cytogenetic abnormalities play a major role in the pathogenesis, presentation, progression and survival. Literature is limited regarding the genetic factors associated with early disease onset and advanced presentation. We present a case of advanced CLL with trisomy 12 mutation presented relatively at an early age.

**Case presentation:** A 66 year old gentleman without significant past medical history presented with constant, new onset right sided throbbing headache and fatigue for one month associated with progressive dyspnea on exertion and 5 pound weight loss in 2 weeks. No fever, chills, night sweats, or bruising. Exam showed conjunctival injection, bilateral edema, and bilateral crepitations. CT scan of chest showed bilateral pleural effusions with underlying consolidations. The patient was transfused with 5 units of leukocyte reduced red blood cells. Upon discharge, he was continued on leuplatin for 5 months.

**Conclusion:** The patient was eventually discharged on leuplatin and had a good response with the tumor burden improving. Trisomy 12 is a frequent abnormality in CLL and is associated with early disease onset and advanced presentation. We present a case of advanced CLL with trisomy 12 mutation presented relatively at an early age.

**ABSTRACT and POSTER RESEARCH**

**TLR4 is Necessary for LPS Mediated Liver Inflammation in NASH**

_Arud Mehta_, Touhid Islam, Arun P Palanisamy, Kenneth D Chavin

Saint Ignatius High School/ Case Western Reserve University, School of Medicine

**Introduction:** Non-alcoholic fatty liver disease (NAFLD), the most common liver disorder in Western countries with an estimated overall prevalence of 20-30%, is expected to increase in prevalence to 50% by 2030. NAFLD, considered a relatively benign condition, can progress to the more insidious non-alcoholic steatohepatitis (NASH). NASH has all the hallmarks of NASH with the added component of hepatic inflammation.

Animal studies have shown that gut flora and chronic liver disease are closely interrelated. There exists a relationship between feeding mice a diet high in saturated fat (MD) and increased liver steatosis, increased inflammation, and neutrophil infiltration consistent with NASH, compared to a control diet (CD) fed mice. LPS is increased in NASH and obesity and adding extraneous LPS results in weight and adipose gain.

**Goals:** In this study we take a closer look at inflammatory molecules TNF-α, IL-1β, CCL-1 and TGF-β, and anti-oxidative molecule, catalase in this TLR4KO model to better understand LPS-TLR-4 pathway in dietary fat mediated hepatic steatosis.

**Methods:** Samples from WT and TLR4 KO mice fed CD or MD and treated LPS, were used for Western blot and RT-PCR analysis. Graph Pad Prism was used for statistical analysis.

**Results:** TLR-4 KO mice fed MD exhibited reduced levels of expression of TNF-α, IL-1β, CCL-1 and TGF-β. Addition of LPS in fat fed TLR4 KO mice did not alter the levels of inflammatory cytokines. Protein levels of catalase were increases both in TLR4KO CD and MD fed mice.

**Conclusion:** The results show that TLR4 is a necessary intermediate in the microbe/LPS mediated inflammatory changes and also in the modulation of anti-oxidative function of catalase during NASH progression.

**Title:** Doxorubicin-induced cardiomyopathy: Prevention and treatment by a coronary specific vasodilator Chromonar

_Maashi Mistry, Anasiv Davudian, Christopher L. Kolt, William Chilian and Vahagn Ovananyan_

Department of Integrative Medical Sciences, Northeast Ohio Medical University (NEOMED), Rootstown, OH

**Objectives:**

- To explore the possibility of using a known coronary vasodilator as a treatment for doxorubicin induced cardiomyopathy.
- To propose a way how doxorubicin can lead to heart failure

**Abstract:**

Doxorubicin is an anthracycline class chemotherapeutic agent that is used with other medications to treat cancers. Doxorubicin works by slowing the growth of cancer cells due to its toxic effects mediated through redox cycling that produces oxidative injury to cells. One side effect of doxorubicin treatment is doxorubicin-induced cardiomyopathy (DC), DC typically has the morphological and functional abnormalities of dilated cardiomyopathy, with all cardiac chambers dilated. This dilation occurs as a result of reductions in diastolic and systolic dysfunction leading to impaired ejection and reduced cardiac output. DC can progress to congestive heart failure. Currently there is no treatment or prevention for DC. Our goal is to test the hypothesis that Chromonar, a coronary specific vasodilator, will prevent and treat DC. We have observed that some types of heart failure are associated with evidence of coronary insufficiency, and Chromonar has a beneficial effect for treatment heart failure with non-obstructive coronary artery disease. Accordingly, we propose that the coronary hyperemia, produced by Chromonar, will be effective in facilitating recovery of the heart from DC. C58Bl/6J mice (N=10) were used for each group. Group 1 received doxorubicin and Chromonar same time, Group 2 received doxorubicin for 6 weeks with Chromonar treatment to follow. Relationship between myocardial blood flow (MBF) and cardiac work in wild type (WT) DOX+ and WT+DOX+ Chromonar for 6 weeks was observed. The MBF was significantly lower in DOX-treated mice and had a blunted response (vs WT) at any given increment of cardiac work. Ejection fraction (EF) of the heart also decreased after DOX and Chromonar treatment. Based on these findings, we speculate that doxorubicin induced cardiomyopathy is inadequate myocardial blood flow to the heart. Pharmacological coronary vasodilatation with Chromonar to increase myocardial blood flow stops and reverses the functional decline and improves cardiac function.
Prostate cancer is the second most common cancer in the United States and the second leading cause of death in men. Androgen-Deprivation Therapy (ADT) is a current treatment modality for advanced-stage prostate cancer, but it remains controversial. More than 30% of patients who have undergone ADT show signs of cancer recurrence and/or androgen-independent disease. Some adverse effects of ADT includes hot flashes, metabolic disorders, alteration in bone mineral density, cardiovascular problems, and sexual dysfunction. Cancer stem cells (CSCs) are a small percentage of cells in a tumor that reinitiates tumor growth. SOX2 is a transcription factor which with high expression may indicate poor prognosis through increased drug resistance and metastasis. OCT4 is the core transcription factor for maintaining pluripotency and is related to tumorgenicity and malignancy. We hypothesize that ADT alters the phenotype of cancer cells to cancer stem cell-like features with higher expression of SOX2 and OCT4. We determined whether ADT results in enrichment of CSCs with higher expression of SOX2 and OCT4. We determined whether ADT results in enrichment of CSCs with higher expression of SOX2 and OCT4. We determined whether ADT results in enrichment of CSCs with higher expression of SOX2 and OCT4. We determined whether ADT results in enrichment of CSCs with higher expression of SOX2 and OCT4. We determined whether ADT results in enrichment of CSCs with higher expression of SOX2 and OCT4.
Effectiveness of Plant Flavone Apigenin versus Methoxy-Apigenin in Prostate Cancer

Sudhir Natesan, Krishna Mukunda, Amritha Mukunda, Eswar Shankar, Sanjay Gupta

Prostate cancer is a major public health problem worldwide and is the second leading cause of death in the United States. Radiation and chemotherapy remains the major treatment options for most prostate cancer patients, however tumor attain resistant leading to failure of radiation and chemotherapy. Targeted therapies may negatively affect patients’ quality-of-life, pose financial burden and perhaps not always be successful. Dietary agent such as apigenin (4',5,7-trihydroxyflavone), a plant flavone has shown to possess anticancer properties and alters pathways that regulate tumor cell invasion and metastasis. Recent studies highlight apigenin’s efficacy in reversing drug resistance in cancer stem cells and significantly enhancing the effects of chemotherapy. Nevertheless, the shortcoming of apigenin is its rapid degradation and clearance from systemic circulation without reaching the target tissue. Therefore, modification in apigenin structure could lead to the development of more effective derivatives. We investigate the efficacy of methoxy-apigenin, which is an addition of a methoxy group to apigenin, in targeting prostate cancer. In this study, we compared the effect of apigenin (Api) and methoxy-apigenin (M-Api) in growing and proliferation of metastatic prostate cancer cells. Androgen-responsive human prostate cancer C4-2B cells and androgen-refractory PC-3 cells were treated with varying concentrations of Api and M-Api (0.3125µM to 20µM) followed by MTT and crystal violet assay to investigate the effect on cell proliferation. Treatment of cancer cells with M-Api showed a marked decrease in cell viability and was more potent than Api in both cell lines. Crystal violet assays demonstrate similar findings on both cancer cell lines. Our results demonstrate higher effectiveness of M-Api over Api and warrants further investigation.
Pulmonary arterial hypertension (PAH) is a rare, progressive disease of the pulmonary vasculature, leading to subsequent pulmonary vasculopathy and activation of hypoxia-inducible transcription factors (HIF) and low nitric oxide (NO) levels in the pulmonary vasculature. In a few confirmed cases, scurvy has been linked to PAH, and can be prevented this outcome as reported in few occasions in the literatures.

Objective: The aim of the study was to identify differences in physician's perception and practice variations of diagnosis, management, and follow-up of new born infants with AKI in India. Methods: An online survey was used to assess nephrologists and pediatricians in India caring for newborn infants with AKI.

Results: Out of 800 respondents, 257 (135 nephrologists and 122 pediatricians) completed the survey, response rate being 32.1%. Resources available to the respondents included level III NICU (59%), neonatal surgery (60%), dialysis (11%), and extracorporeal membrane oxygenation (ECMO, 3%). Most respondents underestimated the risk of AKI due to various risk factors such as prematurity, asphyxia, sepsis, cardiac surgery and medications. Less than half the respondents were aware of the AKIN or KDIGO criteria, which are the current standard criteria for defining neonatal AKI. Only half of the respondents were aware of the risk of EOX in prematurity neonates and nearly half were unaware of the need to follow up with a pediatric nephrologist.

Conclusions: Similar to other regions worldwide, there exists a knowledge gap in early recognition, optimal management and follow up of newborn infants with AKI amongst Indian physicians.
Novel bioengineered immune therapeutics to control autoimmunity
in type 1 diabetes

Parameswaran Ramakrishnan¹, Jonathan Pokorski², Joshua Centore¹, Tristan de Jesus T¹, Derek Church².

Institute(s):
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Text:
Type 1 diabetes is an autoimmune disease associated with hyperglycemia. Increased glucose flux enhances the hexosamine biosynthetic pathway and intracellular posttranslational modification of proteins by the sugar N-acetyl glucosamine (GlcNAc) in a process called O-GlcNAcylation. We discovered that hyperglycemia increases the O-GlcNAcylation of the transcription factor, nuclear factor kappab (NF-kB) c-rel at serine 350. O-GlcNAcylation of c-Rel activates c-Rel-dependent transcription of proinflammatory cytokines in T cells. Hence, blocking the function of O-GlcNAcylated c-Rel will have benefits in controlling autoimmune diabetes by diminishing the T cell-mediated autoimmunity. We developed a novel peptoid, called peptoid3, by molecular modeling and de novo synthesis, which specifically blocks the function of O-GlcNAcylated c-Rel. We found that peptoid3 treatment significantly decreased T cell receptor-induced, O-GlcNAcylated-dependent expression of proinflammatory cytokines. Peptoid3 treatment selectively affected autoimmunity-associated genes and did not exhibit toxicity on survival or proliferation of T cells. Broad inhibition of hexosamine biosynthetic pathway or NF-kB will cause many side effects due to their ubiquitous importance in multiple biological functions. Therefore, inhibitors of O-GlcNAcylated NF-kB c-rel function may prove long-sought-after specific molecular therapeutic to diminish autoimmunity in type 1 diabetes.

Inducing immunological chimerism in DNC organ recipients.

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Organ recipients are treated with aggressive drug regimens to eliminate the recipient’s functional immunity while adding a significant physical stress to the patients. Few researchers have proposed that the administration of donor bone marrow at the time of organ engraftment to induce immunologic chimerism can improve the outcome of the transplant. This technique was viewed as safe but showed varying efficacy. A variance perhaps due to impact of brain death (BD) on marrow function. We believe an important and underappreciated component in this regard is the impact of NO on bioactivity, specifically how it impacts the main regulators of nitric oxide (NO) signaling, S-nitrosothiols (SNOS). We have determined in a pre-clinical model that induction of BD results in rapid depletion of NO and NO levels. Current donor management practices do not account for changes in S-nitrosylation. By targeting NO bioactivity, we have a new mechanism for correcting this system-wide dysfunction, including improved bone blood flow to preserve marrow function. We have developed a first in class S-nitrosylating agent, ENO, that improves physiologic status in a pre-clinical BD preparation and we have successfully completed Phase 1 safety testing. As an initial step, we wanted to characterize the impact of brain death on the functionality of bone marrow obtained from human donors and also from a large animal model. Our data following flow cytometry determined that the percentage of CD34+ cells increases after brain death. However, their in-vitro proliferative capacity declines demonstrated by a decline in BFU-E colonies. Of additional importance, we found a positive correlation between SNO levels and BFU-E colonies. Next, in our swine brain dead models we found a similar decline in the in-vitro proliferative capacity of the bone marrow. However, this dysfunction was corrected by administration of ENO for the 24 h period following induction of BD, which resulted in 80% increase in BFU colonies compared to the control group. Thus, the addition of an S-nitrosylation agent during donor support could improve the engraftment potential of bone marrow from deceased donors and impart functional benefit to the graft recipients.

The importance of diabetes distress and patient retention in glycemic control of patients with Type 1 Diabetes transitioning from pediatric to adult care

Amith Rao (Northeast Ohio Medical University), Kathryn Rodeman, Anna Kongsberg, Jennifer Iyengar, Scott Sodemanpour, University of Michigan

The transition from pediatric to adult care in patients with type 1 diabetes (T1D) is fraught with challenges leading to poor glycemic control and diabetes-related microvascular complications. An underappreciated challenge in all patients with diabetes is diabetes distress, which refers to the emotional/mental burden associated with living with diabetes. Previous studies have shown that increased diabetes distress correlates with poor glycemic control, but the role of diabetes distress in the transition to adult care is unknown. We hypothesize that glycemic control in transition patients is influenced by a combination of both diabetes distress and patient retention in the adult transition clinic during the transition period. To test this hypothesis, we performed a prospective assessment of patients entering the UM Diabetes Transition Program in the first year following the transition from pediatric to adult care (n=87). We determined diabetes distress using the validated Problem Areas In Diabetes (PAID) survey at the time of transition, and followed the frequency of adult endocrinology visits in the first year and HbA1c concentrations in the pre-transition, at transition, and post-transition period. We observed a slight decline in HbA1c levels after each endocrinologist visit for patients who attended at least 3 visits within the first year (n=71). We also observed that patients with severe distress (PAID≥40, n=19) tended to have higher pre-transition and transition HbA1c levels than those with moderate (PAID 30-40, n=12) or low distress (PAID<30, n=37). Patients with moderate distress, however, showed a significantly lower retention rate (p<0.01) and higher post-transition HbA1c than those with severe and low diabetes distress. Importantly, patients who saw their adult endocrinologist at least 2 times in the year after transition had a significantly lower pre-transition (P<0.02) and transition HbA1c (P<0.002). Patients who saw their adult endocrinologist >3 times in the year after transition also showed a significant decrease in post-transition A1c (P=0.06). These data suggest that diabetes distress and patient retention are significant factors in glycemic control of transition patients. The findings presented have implications towards potential improvement of the existing standard of care regarding T1D patients transitioning from pediatric to adult care.
Monika Satoskar
**Title:** Evaluation of immune prophylactic response of GLP grade Leishmania major centrAIN deleted (LmCen-) live attenuated parasites as a vaccine against visceral Leishmaniasis in Hamsters.

**Authors:** Monika Satoskar, Sanika Satoskar, Rajiv Sastry, Subir Karmakar, Neiven Ismail, Ranadhir Dey, Hira L. Nakhasi

**Background:** Leishmaniasis is a vector-borne parasitic disease affecting millions of people worldwide. To date, there is no licensed vaccine available against human Leishmaniasis. It has been shown that low dose of dermatotrophic wild type Leishmania major infection (leishmanization) confers protection against cutaneous Leishmaniasis (CL) as well as cross-protection against visceral Leishmaniasis (VL). However, such a method of immunization is not practical because of the great risk of infection in a naïve population. Therefore, genetically modified live attenuated parasites that are non-parasitic might induce the same protective immunity as leishmanization. We have developed centrin-deficient Leishmania major (LmCen-) using CRISPR-Cas9 methodology and evaluated the safety, immunogenicity as well as protective efficacy against L. donovani challenge. Previous studies from our laboratory demonstrated that lab grown LmCen- induced significantly strong host protective immune response against L. donovani infection in hamster model. Six weeks post-immunization hamsters were infected with L. donovani by needle injection or by infected sand flies. In both sets of experiments, non-immunized hamsters developed severe pathology of VL, while immunized hamsters showed significantly lower parasite burden in liver and spleen. We also evaluated the cellular immune response between immunized & non-immunized hamsters after challenge with wild type parasites. Splenic cells from LmCen- immunized and challenged hamsters produced significantly more Th1-associated cytokines including IFNγ and TNF-α, and significantly reduced expression of the anti-inflammatory cytokine IL-10 and IL-21, compared to non-immunized and challenged animals.

**Objective:** The goal of the study was to evaluate the safety and efficacy of the LmCen- parasites generated under GLP (Good Laboratory Practice) condition in Hamster VL model.

**Results:** In this study, we compared the immune response of GLP grade and lab grown LmCen- parasites. Similar to intradermal immunization of hamsters with lab cultured LmCen- parasites, GLP grade parasites did not develop any detectable lesion after immunization suggesting these parasites are safe as an immunogen. Splenic and ear cells from either GLP grade LmCen- immunized or lab grown LmCen- immunized hamsters produced comparable Th1-associated cytokines including IFNγ and TNF-α. IgG1, antibodies associated with protection were similar between the groups as well. Studies are underway to evaluate the efficacy of GLP grade parasite against visceral infection.

**Conclusions:** Our studies demonstrate that the GLP grade LmCen- mutant parasites are safe and immunogenic as lab grown LmCen- and have a potential to be an effective vaccine against VL.

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Sanika Satoskar
**Title:** Immunization with Leishmania major centrin knock-out (LmCen-) parasites induces skin resident memory T cells that play a role in protection against Leishmaniasis infection

**Authors:** Sanika Satoskar, Monika Satoskar, Rajiv Sastry, Neiven Ismail, Subir Karmakar, Parita Bhattacharya, Ranadhir Dey, and Hira L. Nakhasi

**Background:** Leishmaniasis is a vector-borne disease transmitted through a sand fly bite with no available vaccine. Vaccination through leishmanization with Leishmania major has been used successfully but is not safe. Recently, we have demonstrated immunization with live attenuated LmCen- parasite protects against Leishmania infection via induction of host cellular immunity and is safe in various animal models.

**Objective:** Resident memory T cells (Tres) are considered the first line of defense against infections invading the host through the epithelial barrier. The goal of this study is to evaluate the generation and function skin Tres, post LmCen- immunization compared to that generated through leishmanization.

**Results:** We examined chemokine receptors controlling the generation and survival of skin Tres, as well as effector and recruitment function of Tres, in LmCen- and Leishmanized immunized mice after challenge with WT parasites. Expression of chemokine receptors controlling the formation of Tres in skin was significantly higher in the skin of LmCen- immunized mice, compared to infected (Leishmanized) mice, at 20 weeks post immunization/infection. In addition, epithelial cytolysis production, such as IL-15, IL-23 and TNF-α was significantly higher in the skin of immunized mice. Upon virulent challenge, TH1 cytokines production in the skin, measured by RT PCR, was similar in immunized mice compared to healed mice. Furthermore, Tres specific activation protein, ITGA-1, was higher in the treated groups compared to the nonimmunized control.

**Conclusions:** Results show that immunization with live attenuated parasites generates functional population of skin Tres compared to leishmanization which play an important role. Upon challenge, both immunized and leishmanized mice developed similar effectors immune response.
Anti-MOG antibodies in Pediatric Neuroinflammatory Demyelinating Diseases
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Abstract:
Introduction: Central nervous system (CNS) oligodendrocyte-derived myelin contains myelin oligodendrocyte glycoprotein (MOG), a known auto-antigen in experimental and clinical inflammatory demyelinating diseases. Highly sensitive and specific anti-MOG antibody testing became commercially available in October 2017 in the United States. Thus, our understanding of anti-MOG-related CNS demyelinating disease in clinical, non-research, cohorts is limited.

Objective: To characterize pediatric anti-MOG positive patients (MOG+).

Methodology: We retrospectively reviewed pediatric and adolescent patients presenting with neurological symptoms to Akron Children’s Hospital (ACH) from January 1, 2014 through May 24, 2019. Using Epic’s Slicer-Dicer Analytic tool, we identified patients with CNS inflammatory disease diagnoses including: acute disseminated encephalomyelitis (ADEM), acute optic neuritis (AON), encephalitis, transverse myelitis, neuromyelitis optica spectrum disorder, and multiple sclerosis. Charts were reviewed for anti-MOG testing, and anti-MOG positive patients (MOG+) were included in this analysis. ACH Institutional Review Board exemption was obtained.

Results: 8/35 tested patients were MOG+. 6/8 MOG+ (75%) were female, with a mean presenting age of 7.25 years. Despite heterogeneity of presenting symptoms, ADEM was the most common diagnosis (6/8 MOG+). The other two diagnoses were AON and acute cerebellar ataxia. No MOG+ had comorbid autoimmune diagnoses, though one had an asymptomatic Leber Hereditary Optic Neuropathy gene mutation. Two MOG+ patients have chronic relapsing disease requiring disease modifying therapies; the remainder were monophasic and responded to high dose corticosteroids. Two initially MOG+ were anti-MOG negative 6-12 months after initial presentation and have not relapsed. 6/8 MOG+ have ongoing neurologic symptoms or disability beyond 6 months of follow-up.

Conclusions: In our small cohort, ADEM was the most common initial diagnosis, and MOG+ was associated with persistent neurologic disability. Ideally, as clinical phenotypes emerge, early identification of MOG+ patients may lead to faster treatment, better prognostication, and implementation of acute vs. chronic treatment depending on risk for relapsing disease.

Reviewing Disasters: Hospital Evacuations in the United States from 2000-2017
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Objectives
- Discuss hospital evacuations from 2000-2017
- Showcase the variances in the data as categorized per state
- Elaborate on the causes of evacuations in the United States, ranging from external, internal, and man-made
- Deliberate the implications of this data by examining its applicability in disaster planning
- Consider the necessity for a national database to report incidences of evacuations

Abstract
Introduction: Between 2000 to 2017, there were over 150 hospital evacuations in the United States. Data received from 35 states primarily concentrated in California, Florida, and Texas. The study aimed to investigate US hospital evacuation, compiling the data into external, internal, and man-made disasters; thus, creating a risk assessment for hospital disaster planning.

Methods: Reports were retrieved from Lexis Nexis, Google, and PubMed databases, and categorized according to evacuators, duration, location, and type. These incidents were grouped into three classifications: external, internal, and man-made. The study design included partial and full evacuations.

Results: There were a total of 154 reported evacuations in the US. 110 (71%) external threats, 24 (16%) man-made threats, and 20 (13%) internal threats. Assessing the external causes, 60 (35%) attributed to hurricanes, 21 (13%) wildfires, and 8 (7%) storms. From the internal threats, 8 (40%) attributed to hospital fires and 4 (20%) chemical fumes. From the man-made threats, 6 (40%) attributed to bomb threats and 4 (27%) gunfire. From the 20 reported durations of evacuations, 9 (45%) lasted between 2 to 11:59 hours, 6 (30%) over 24 hours, and 5 (25%) up to 1:59 hours.

Discussion: Over 70% of hospital evacuations in the US were due to natural disasters. Compared to 1971-1999, there was an increase in internal and man-made threats. Exact statistics on evacuators, durations, injuries, and mortality rates were unavailable due to a lack of reporting. In light of the limitations, it is recommended to implement a national registry to report incidences of evacuations to assist with disaster and infrastructure planning.

Conclusion: From the reported evacuations, the greatest number due to external threats. This resulted in decreased patient-care along with increased risks. Unreliability of reports and missing information further led to increased hospital vulnerability to future disasters due to poor planning.

References

Conflict of Interest: Neither author has any potential conflicts of interest to disclose.

Diplopia and a lazy eye
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Abstract
Intracranial ophtalmoplegia (INO) is a case of blurry vision with diplopia in patients caused by dysfunction of extracranial movements of eye. Adduction of the affected eye is weak with contralateral abductions myasthenia.

A 59 year old gentleman with past history of glaucoma, hypertension, coronary artery disease status post stenting of the left anterior descending artery in 2017, prostate adenocarcinoma in remission post external beam radiotherapy, and erectile dysfunction presented with sudden onset of lightheadedness and blurred vision. He denied any current or past history of retinitis pigmentosa, limb weakness or blurred speech. No sensation of “talking curtain” over field of vision, no headaches fever or neck stiffness. After one hour of the symptoms, he presented to the emergency department.

Medications included doxazosin, lataprost, simvastatin, aspirin, and viagra (last taken 3 days prior). The patient quit smoking and drinking alcohol more than 5 years ago and denied any illicit drug use or sexually transmitted diseases. He has been on disability since diagnosed with cancer and previously worked as a custodian.

On exam, vitals were temperature 37, heart rate 46, respiratory rate 14, blood pressure 137/72, and 100% on pulse oximetry. Pupils were round and reactive to light, red reflexes were seen and no obvious abnormality seen on fundoscopic exam. On tonometry, left eye pressure was 11 mmHg and right eye pressure was 12 mmHg. Right eye demonstrated improved adduction with contralateral left eye myasthenia on leftward gaze. Patient had reproducible diplopia on leftward gaze which also resolved with covering of the right eye. Otherwise cranial nerve exam unremarkable. There was no demonstrable motor or sensory deficits and no cerebellar signs.

CT and MRI of the head showed nonspecific white matter changes, echocardiogram and carotid duplex were normal. Patient was discharged with neurology follow up, new medications included aggrenox and stovastatin.
A very rare case of venous thromboembolism
May-Thurner Syndrome
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St. Vincent Charity Medical Center

Abstract

A 56-year-old African American gentleman with past medical history of hypertension and coronary artery disease presented with left lower extremity pain and swelling of the leg for five days. He had no history of leg trauma, recent surgery, bed rest, travel, malignancy, previous clotting episodes or family history of hypercoagulable disorders. Patient regularly ambulates. He is a lifetime non-smoker and does not take any medication. His left lower extremity swelling was swollen from the calf down to the ankle and foot, tense, erythematous and tender to palpation. Dorsalis pedis and posterior tibial pulses were weakly palpable. Homans’ sign was appreciated while the rest of the physical exam was unremarkable. Duplex ultrasound of the left lower extremity showed thrombosis in the left popliteal, posterior tibial and peroneal veins. CT abdomen and pelvis with IV contrast demonstrated significant compression of the left common iliac vein as it crosses posterior to the left internal iliac artery, consistent with May-Thurner Syndrome (MTS). Spiral chest CT was significant for subsegmental emboli in the bilateral lower pulmonary arteries. Patient was started on anticoagulation, then he was referred to an advanced vascular center to consider the need for angioplasty and stenting and for possible thrombolyis.

May-Thurner Syndrome (MTS) was first described in 1908 by Virchow, who observed that iliofemoral vein thrombosis was five times more likely to occur in the left leg than in the right leg. May and Thurner discovered an anatomical variant where the right iliac artery compressed the left iliac vein against the fifth lumbar vertebra. Clinicians should have a high index of suspicion for MTS in the presence of unprovoked DVT in the left lower extremity and/or signs of chronic venous hypertension. Angioplasty and stenting of the affected lesion is the definitive treatment for MTS, while anticoagulation management is similar to patients with provoked VTE. Therefore, it can be argued that patients with an unexplained cause of VTE, investigation for MTS if clinically suspected can impact management decisions.

Mortality in Nursing Home Evacuations in the United States From 1995-2017

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Objectives

Discuss nursing home evacuations from 1995-2017
- Showcase the variance in the data as categorized per state
- Elaborate on the causes of evacuations in the United States, ranging from external, internal, and man-made
- Review mortality statistics to assess efficiency of current infrastructure-planning
- Deliberate on the implications of this data by examining its applicability in disaster planning

Consider the necessity for a national database to report incidences of evacuations

Abstract

Introduction

There are an estimated 15,600 nursing homes with a total of 1.4 million residents in the United States. The number of residents will continue to increase due to the aging population, and the associated morbidities will make it difficult to evacuate them safely. This study is the first of its kind to provide an analysis on the number of nursing home deaths caused by external and internal evacuation events.

Methods

Information from Lexis Nexis and PubMed databases were compiled and limited to news articles from 1995-2017. The study included the reason for evacuation, injuries, deaths, and locations within the US.

Results

From 1995 to 2017, there were a reported total of 51 evacuations and 141 deaths in nursing homes. 27 (53%) due to external events, resulting in a combined 121 (86%) deaths, and 24 (47%) due to external events, resulting in a combined 20 (14%) deaths. Hurricanes were the primary cause of death, followed by fires and floods. The number increased the greatest between 2005 to 2008.

Discussion

Over 50% of nursing home evacuations in the US were secondary to natural disasters. Exact data on evacuations, durations, injuries, and mortality rates were unascertained due to a lack of reporting. In light of the limitations, it is recommended to implement a national registry to report incidences of evacuations to assist with disaster and infrastructure planning.

Conclusion

External events have the greatest impact on loss of life. Internal disasters are about equal in number of incidents; however, external events have a greater mortality rate. In view of the increasing likelihood of natural disasters related to global warming, a drastic improvement of standard evacuation procedures of long-term nursing homes is imperative to decreasing mortality of nursing home residents. There also needs to be a national standardized method of reporting evacuations in order to better analyze data on nursing homes.

References


Conflict of Interest: Neither author has any potential conflicts of interest to disclose.

She was then admitted to the intensive care unit, started on conservative management that included IV fluids, IV antibiotics and systemic steroids. The patient showed gradual improvement back to her baseline upon discharge.

Discussion

Pneumonia is a rare but severe side effect associated with PDD-1 inhibitors, it is imperative to have a high index of suspicion, as early diagnosis and treatment with systemic steroids will prevent an otherwise fatal disease. The diagnosis is usually delayed due to lack of similar published reported cases. We report this case in order to raise awareness about a rare but commonly fatal side effect of PDD-1 inhibitors.

An uncommon adversity, a true key or double edge?

Ali Varasteh MD, Jahan Azar MD, Nabihah Abdullah MD, Vasant Themul MD, Keyvan Ravakham MD

Introduction

Pembrolizumab is a selective anti-programmed cell death (PD-1) humanized monoclonal antibody which inhibits (PD-1) activity through interacting with PD-1 receptor on T-cells blocking its interaction with PD-1 ligands. Antagonising the PD-1 pathway inhibits the negative immune regulation caused by PD-1 receptor signaling; therefore it induces anti-tumor response via reversing T-cell suppression. Pneumonia is a rare side effect of PD-1 inhibitors commonly misdiagnosed as pulmonary infection.

Case presentation

We present a case of a 60-year-old woman with stage 4 adenocarcinoma of the lung which was diagnosed on May 2018 presented with 2 day history of shortness of breath. She was treated with chemotherapy (carboplatin and pemetrexed) and radiotherapy. Several months later a biopsy of the left adrenal gland metastasis was positive for over-expression of PD-1 by 95%. She was subsequently started on pembrolizumab 200 mg intravenous treatment every 3 weeks with total of 4 treatments. Her last dose was 2 weeks prior presentation. The patient was admitted with shortness of breath, productive cough, hemoptysis and pleuritic chest pain.

Initial blood tests demonstrated white blood cell count of 13.7 x10^9/L and hematocrit 3.9 g/L. Liver and renal function tests were normal. Lactic acid 1.4 mmol/L, procalcitonin 0.28 ng/ml and C-Reactive protein, 180 mg/L. An arterial blood gas in the room air showed pH of 7.45, pCO2 31, pO2 78 and HCO3 21. ECG was evident of sinus tachycardia. Blood and sputum cultures, influenza, and legionella, NRSO culture from nasal swab, and respiratory syncytial virus antigen were negative. Chest X-Ray showed bilateral opacities. CT of the chest was remarkable for signs of remission, however, a new diffusely scattered ground-glass opacities and atelectasis with interlobular septal thickening was evident of severe pneumonitis. Patient was diagnosed with Grade 2 anti-PD1 (Pembrolizumab) induced pneumonitis.

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ABSTRACT and POSTER RESEARCH

Title: Perioperative administration of Emend® (aprepitant) at a tertiary care children's hospital: a 12-month survey

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Objectives:
1. Study ketamine's effect on depressive symptoms between male and female patients with major depressive disorder.
2. Study which gender responds faster to ketamine treatment by administering MADRS questionnaire.

Abstract:
Introduction: Major Depressive Disorder is characterized by depressed mood, decreased energy, changes in sleep and appetite, anhedonia and suicidal ideation. FDA-approved antidepressants, which modulate monoamine neurotransmitters take several weeks to provide therapeutic relief. Recently, ketamine, a non-competitive NMDA receptor antagonist, has been used for treatment-resistant depression.

Unlike other antidepressants, it is characterized by a rapid onset of action. Previous studies show a single-dose infusion of ketamine rapidly decreases suicidal ideation and provides anti-depressant effects. In rodents, ketamine was found to be metabolized differently between females and males. Females had greater concentrations of ketamine over the first 30 minutes in both the brain and plasma due to slower clearance rates. Additionally, estrogen and progesterone, may make females more sensitive to the effects of ketamine. Very few studies have examined the role of gender in response to ketamine in the clinical setting. We hypothesize females will respond earlier than men to ketamine treatment.

Methods: The study was approved by the Institutional Review Board and Participants signed consent. Patients (n = 13, 6 male, 7 female) received 0.5 mg/kg intravenous infusion of ketamine for treatment-resistant depression biweekly as standard of care. Response was measured using the Montgomery-Asberg Depression Rating Scale (MADRS). Scores at the 2nd visit (2-5 days after the 1st injection) were compared to scores at baseline.

Results: The average MADRS scores decreased 10.3% for men (from 37.7±5.7 to 33.8±1.0) and 22.6% for women (from 33.6±6.7 to 26.0±6.7) between the 1st and 2nd assessments. After one injection, 28% of women and 0% of men had a decreased in MADRS score ≥50%, defined as response to treatment.

Conclusion: Analysis of data from this small sample suggests that females may have a higher rate of early response to low-dose ketamine infusion than men. This will need to be confirmed with a larger sample for statistical significance.

No conflict of interest for any of the authors.

Sheela Vaswani

Molecular Programming in Prostate Cancer Cells after Enzalutamide Exposure

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Enzalutamide, a second-generation androgen receptor (AR) antagonist, has demonstrated clinical benefit in men with prostate cancer. However, it only provides a temporary response and modest increase in survival with minimal risk of emergence of resistance. Studies suggest enzalutamide function as AR antagonist, but the underlying mechanisms of enzalutamide-induced molecular programming is poorly understood. Here, we show that enzalutamide stimulates expression of a novel subset of genes distinct from androgen-responsive genes.

We generated a cell model of enzalutamide resistance by prolong treatment of androgen-responsive human prostate cancer LNCaP cells with progressively increasing concentration of enzalutamide (LNCaP-ENZU) and compared with parental cell line by performing Next-Gen sequencing. RNA-seq data analysis showed that genes including XIST, AKT3, ZNF535, IRR4, HOXB3, FN1, FHL1, GSTP1, VCAN, KIAA0408 were more than 10 fold higher (log2 fold), and 10 genes including ZNF544, KLK2, CSMD1, ZG16, SPDEF, AR, C1R1, FOLH1, HSTHIB, and Tmprss22 were down regulated (~10 to ~12 log2 fold) in LNCaP-ENZU resistant cells, compared to parental cell line. Analysis anchored with TCGA and CLEL databases, demonstrated some genes exhibited epigenetic modification/alteration in promoter methylation viz. XIST, AKT3, FOLH1 and RALYL, which were hypermethylated in prostate tumor, compared to benign prostate tissue. In contrast, 2 gene network analysis using ZINGANA showed the genetic interaction with AR. For example, AKT3, HOXB3, and KIAA0408 showed interaction with AR thru MTC1L and FOLH1; whereas RALYL and KLK2 showed interaction with AR thru CUYN. The differentially expressed genes of LNCaP-ENZU resistant cells overlapped with signaling pathways including IL6 signaling, glucocorticoid receptor signaling, immune response, inflammation, fatty acid signaling, drug resistance, bile acid biosynthesis, lipid metabolism, p53 signaling, and type II diabetes. These signaling pathways may activate downstream cytokines, transmembrane receptor and transcriptional regulators, which could further influence the expression of various target genes. Taken together, our findings demonstrate molecular reprogramming after enzalutamide exposure and identify some novel genes such as XIST, SPON2, KLK2 and ZG16B which may be used as therapeutic target to identify relapse/recurrence of castration-resistant prostate cancer after enzalutamide treatment.

Shiv Verma

Morphological characteristics of progenitor and non-progenitor cells derived from human cartilage using time-lapse phase contrast microscopy

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Abstract
Stem and progenitor cells have the capacity to differentiate and play a vital role in tissue and cartilage regeneration. It is essential to be able to distinguish connective tissue progenitors from non-connective tissue progenitor cells in order to use them therapeutically. Accordingly, the goal of this study was to use time-lapse phase contrast microscopy to examine the morphological characteristics of progenitor and non-progenitor cells in order to differentiate them for use in cellular therapies. Tissue samples from five patients with knee osteoarthritides were used for analysis. Phase contrast video of cultured progenitor cells was gathered and sequentially analyzed over a time period of ten days. Using ImageJ software, images were background corrected and analyzed with metrics for area, perimeter, circularity, and diameter being collected for each progenitor and non-progenitor. Cell samples demonstrated that on day 1 the area of progenitors (mean of 60.8 μm²) was significantly greater than that of the non-progenitors (mean of 28.3 μm², p-value 8.01x10^-12), however the circularity was equal with a mean of 0.56. Comparing day 1 and day 10 non-progenitors, the area of day 10 non-progenitors (mean of 70.7 μm²) was greater than day 1 non-progenitors (mean of 28.3 μm²). However, the circularity of day 10 non-progenitors was less with a mean of 0.16 compared to a mean of 0.29 from the non-progenitor cells. Accordingly, the area metric of stem cells could provide a useful method for identifying progenitor cells to be used for cellular based therapies because of the significant increase in size over time.
GBM is the most common primary malignant brain tumor. Early detection of this tumor type remains challenging and median survival time of those affected remains around 14-16 months. Currently there is no cure for GBM, and radiation, surgery, and chemotherapy are used to try and combat this disease. GBM ranks #1 among all cancers in terms of average years of life lost. This poor prognosis can be partially attributed to the extremely high recurrence rate of the disease. GBM tumor cells are highly infiltrative and include subpopulations of cells with the capacity to self-renew and generate the cellular diversity present in the tumor. The actions of these cells, commonly referred to as Cancer Stem Cells or CSCs, are strongly associated with disease recurrence. This research is focused on improving the understanding of glioblastoma CSCs and developing therapies that specifically target these cells. Junction Adhesion Molecule A or JAM-A was initially identified as a cell junction protein that is responsible for maintaining thin tissue forming the outer layer of a body’s surface and lining the alimentary canal and other hollow structures. Studies in the past have demonstrated that JAM-A is able to regulate both pro and anti-tumorigenic processes in cancer, and might be useful as a biomarker of malignant tumors. The majority of these studies provide evidence for JAM-A having an intrinsic, pro-tumorigenic role in regulating the CSC phenotype, cancer cell proliferation, and metastasis for multiple tumor types, in particular GBM. None of these studies, however, have focused specifically on the isolated role of JAM-A or its potential role in a larger signaling network for cancers. SerpinB3 was chosen for functional assessments due to its previously identified role in the tumorigenesis of hepatocellular carcinoma and limited known role in GBM. Endogenous JAM-A binding to SerpinB3 was confirmed through immunoprecipitation of SerpinB3 that demonstrated JAM-A binding. To investigate the CSC-specific role of SerpinB3, SB3 will be knocked down in a human GBM xenograft model (T4121) utilizing two non-overlapping short-hairpin RNA constructs. The GBM CSCs will be orthopedically inserted into the mice via an intracranial injection. This study will have a threefold outcome, provide the identity of a novel binding domain within junctional adhesion molecules; identify an interaction that can be specifically targeted with drugs to fight against an otherwise therapeutically resistant cell population; and clarify the role SB3 plays in GBM CSCs specifically.
ASSOCIATION OF INDIAN PHYSICIANS OF NORTHERN OHIO
DISTINGUISHED PHYSICIAN OF THE YEAR CRITERIA

For distinguished physician award recipient to be recognized at AIPNO's Annual dinner, the nominee:
• Shall be member of AIPNO in good standing.
• He/She shall not be directly related to Awards and Recognition Committee for that year.
• He/She shall not be member of Awards and Recognition Committee for that year.
• Direct relation being spouse, sister, brother, son, daughter, parent.
• If selected He/She shall be available to receive award in person.
• The nominees shall be evaluated by point system by Awards and Recognition Committee.
• The decision of Awards and Recognition Committee will be considered final. All records of evaluation will be filed in AIPNO office.

Following point system will be used to evaluate the nominees. The physician with highest score shall be a recipient of award.

1. **Service to AIPNO** - (30 Points)
   Includes positions held, physician’s effectiveness of role in AIPNO.

2. **Academician**
   Academic Achievement
   Highest rank achieved (10 points)
   Publications- Peer reviewed (5 points)
   Not reviewed by peers including books, journals, editorials, articles

3. **Private Practitioner**
   Academic Achievement
   Highest rank achieved (15 points)

4. **Service to other community associations** - (20 points)
   Includes positions held, physician’s effectiveness of role in these organizations.

5. **Philanthropy** - (15 points)
   Donation in funds
   Donation of personal time

6. **Medical practice** - (10 points)
   Years in practice
   Quality of practice.

7. **Non-academic achievement** - (10 points)

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ASSOCIATION OF INDIAN PHYSICIANS OF NORTHERN OHIO
MEDICAL STUDENT SCHOLARSHIP AWARD CRITERIA

For student scholarship award of $1000.00 the nominee:
Final year medical student with place of residence or medical school being Northeast Ohio.
If selected He/She shall be available to receive award in person.
The nominees shall be evaluated by point system by Awards and Recognition Committee.
The decision of Awards and Recognition Committee will be considered final. All records of evaluation will be filed in AIPNO office.
Following point system will be used to evaluate the nominees. The medical student with highest score shall be a recipient of award.

Academic merit - (50 points)  Extra curricular achievements - (25 points)  Community service - (25 points)
GPA, SAT, MCAT, USMLE-I  Sports, music, drama, other hobbies and talents
Publications, research
### PAST PRESIDENTS

<table>
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<tr>
<th>Year</th>
<th>Name</th>
<th>Year</th>
<th>Name</th>
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<td>1984</td>
<td>Shashin Shah, M.D.</td>
<td>2002</td>
<td>Sanjay Parikh, M.D.</td>
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<td>1985</td>
<td>K.V. Gopalkrishna, M.D.</td>
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<td>Arvind Shah, M.D.</td>
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<td>Shailesh Nanavati, M.D.</td>
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<td>2007</td>
<td>Sagarika Nayak, M.D.</td>
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<td>2008</td>
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<td>Sudhir Mehta, M.D.</td>
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<td>L.C. Roa, M.D.</td>
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<td>Umesh Yalavarthy, M.D.</td>
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<td>Vasu Pandrangi, M.D.</td>
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<td>Ravi Krishnan, M.D.</td>
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<td>Girish Mulgaokar, M.D.</td>
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<td>Hari Balaji, MD</td>
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<td>Anjali Ambekar, M.D.</td>
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<td>2001</td>
<td>Ajit Shah, M.D.</td>
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### PAST DISTINGUISHED PHYSICIANS OF THE YEAR

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<td>Satish Kalhan, M.D.</td>
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<td>Ajit C. Shah, M.D.</td>
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<td>Sharad Deodhar, M.D.</td>
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<td>Prasanta K. Raj, M.D.</td>
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<td>Gita Gidwani, M.D.</td>
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<td>Elizabeth K. Balraj, M.D.</td>
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<td>Lilian Gonsalves-Ebrahim, M.D.</td>
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<td>Laxminarayana C. Rao, M.D.</td>
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<td>Arvindkumar Shah, M.D.</td>
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<td>Umesh Yalavarthy, MD</td>
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### PAST MEDICAL STUDENT SCHOLARSHIP RECIPIENTS

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<td>Nand Kamath</td>
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<td>Saba Mubarka Ali</td>
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ARTICLES OF INCORPORATION
ASSOCIATION OF INDIAN PHYSICIANS OF NORTHERN OHIO, INC.

The undersigned, a majority of whom are citizens of the United States, desiring to form a corporation not for profit under Ohio Revised Code, Section 1702.01, et. seq., So hereby certify:

Article 1 - NAME
The name of the corporation shall be the Association of Indian Physicians of Northern Ohio, herein referred to as the Corporation.

Article 2 - PLACE
The place in the State of Ohio where the principal office of said corporation shall be located in the County of Cuyahoga.

Article 3 - NONPROFIT
The Corporation is a nonprofit corporation as described in section 1702.01 of the Ohio Revised Code. The Corporation is not organized for the pecuniary profit of its Trustees, Officers or Members. The Corporation shall not declare nor distribute a dividend, and no part of its net earnings shall inure, directly or indirectly, to the benefit of any Trustee, Officer or Members, but the Corporation shall be entitled to make payments authorized under Article 7 Limitation and any balance of money or assets remaining after the full payment of Corporate obligations of all and any kind shall be solely devoted to the educational and benevolent purposes of the Corporation.

Article 4 - DURATION
The duration of the Corporation is perpetual.

Article 5 - PURPOSES
A. The Corporation is organized for educational and charitable purposes.
B. To bring together the physicians of Indian origin practicing in Northern Ohio in one organization, and to enhance their knowledge and mutual understanding.
C. To assist medical students and physicians to obtain medical training in the United States.
D. To conduct educational programs to acquaint the members with clinical, scientific and other developments in the field of medicine.
E. To render medical services to indigent people in the community.
F. To provide a vehicle for members to contribute to medical care and medical education in India.
G. To provide mutual understanding and cooperation between members of this Corporation and other local and national organizations of mutual interest in the United States and India.

Article 6 - POWERS
Solely for the foregoing purposes, the Corporation shall have the following powers:

1) To publicize and promote the purposes of Corporation to all members of the Corporation and to the public;
2) To exercise all rights and powers conferred by the laws of the state of Ohio upon nonprofit corporations; and
3) To do such other things as are incidental to the purposes of the Corporation or necessary or desirable in order to accomplish such purposes.
Article 7 • LIMITATION
No part of the net earnings of Corporation shall inure to the benefit of or be distributed to its Members, Officers, or Trustees, but the Corporation shall be authorized and empowered to pay reasonable compensation for services rendered and to make payments and distributions in furtherance of the Purposes as set forth in Article 5, Purposes.

Article 8 - TAX EXEMPT
It is intended that the Corporation shall have the status of a corporation that is exempt from federal income taxation under Section 501(a) of the Internal Revenue Code of 1986, as amended, (the Code), and an organization described in Section 501 (c)(3) of the Code. These Articles shall be construed accordingly, and all powers and activities of the Corporation shall be limited accordingly.

Article 9 - DISSOLUTION
Upon the dissolution of the Corporation, the Board of Trustees shall, after paying or making provision for the payment of all the liabilities of the Corporation, dispose of all the assets of the Corporation exclusively for the purpose of the Corporation, in such a manner, or to such organizations organized exclusively for charitable, religious, cultural or scientific purposes as shall at the time qualify as an exempt organization or organizations under Section 501(c)(3) of the Internal Revenue Code of 1954 or the corresponding provision of any future United States Internal Revenue Law. Any of such assets not so disposed of shall be disposed of by the court of appropriate jurisdiction of the county of which the principle office of the Corporation is then located, exclusively for such purposes or to such organization or organizations as said court shall determine to be organized and operated exclusively for such purposes.

Article 10 • MEMBERS
There shall be three categories of members, voting, associate and honorary.

Article 11 - QUORUM
The quorum for any meeting of the Executive Committee or Board of Trustees shall consist of a simple majority.

Article 12 - OFFICERS
The Corporation shall have a President, President-Elect, Secretary and Treasurer and Immediate Past President. Each officer shall be elected as set forth in the Code of Regulations.

Article 13 - EXECUTIVE COMMITTEE
The Executive Committee shall be composed of the President, President-elect, Secretary, Treasurer, Immediate Past President and ten members at large. Each at large member shall be elected as set forth in the Regulations.

Article 14 - TRUSTEES
The number of Trustees may be increased or decreased from time to time in accordance with the regulations, but shall never be less than three. The Trustees shall be elected as set forth in the Regulations.

Article 15 - NON-STOCK BASIS
This corporation is formed on a non-stock basis and shall not issue shares of stock.

Article 16 - AMENDMENTS
SECTION I
These Articles of Incorporation and the Code of Regulations, or any articles or sections or any part thereof may be amended, repealed or new by-laws adopted by the affirmative vote of two-thirds of those members entitled to vote at a meeting duly called and held for that purpose. The quorum for such a meeting shall be 20% or 40 members, whichever is the larger number of members entitled to vote.
SECTION 2
Any amendment may be proposed by resolution adopted by the Executive Committee or by at least 20 active members of the Corporation. Said such proposed amendments shall then be submitted by the Executive Committee to the entire membership entitled to vote, at least 45 days prior to calling a meeting for the purpose of amending these Articles.

Article 17 PARLIAMENTARY AUTHORITY
Officers, Trustees and Members shall guide conduct business of the Foundation using Robert's Rules of Order, unless otherwise specified in these Articles or Code of Regulations.

Article 18 - INDEMNIFICATION
The Corporation shall indemnify each Trustee and Officer of the Corporation to the fullest extent permitted by the law.

CODE OF REGULATIONS
ASSOCIATION OF INDIAN PHYSICIANS OF NORTHERN OHIO, INC.
AN OHIO NONPROFIT CORPORATION

Article 1- CODE OF REGULATIONS
These regulations constitute the Code of Regulations adopted by the Corporation for the regulation and management of its affairs.

Article 2 - PURPOSES
This Corporation is organized and shall be operated for the purposes set forth in the Corporation's Articles of Incorporation.

Article 3 - POWERS
Solely for the foregoing purposes, the corporation shall have the powers set forth in the Corporation's Articles of Incorporation.

Article 4 - MEMBERSHIP
SECTION 1 - Voting Members
Active membership is open to all physicians of Indian origin who are practicing medicine or are retired in Northern Ohio who maintain high moral, ethical, and professional standards. They shall have the right to vote and are eligible to hold office; Active members may become Life Members by paying the dues for lifetime membership. The dues for life membership will be determined by the Board of Trustees. The Corporation shall have voting members (Active) who shall have all rights and privileges of members of the Corporation.

SECTION 2 - Associate Members
Physicians in training, dentists, medical scientists and medical students of Indian origin residing in Northern Ohio. They shall have the right to vote but are not eligible to hold office.

SECTION 3 – Honorary Members
Honorary membership may be conferred by the Board of Trustees upon physicians and spouses of deceased members, who have shown outstanding achievements and special interest in this Corporation. Honorary members will not be eligible to hold office.
Article 5 - DUES
Active and Associate members shall pay annual dues which shall be determined and reviewed as needed by the Executive Committee. Honorary members are not required to pay dues. The fiscal year shall be from January 1 through December 31. Annual dues shall be due and payable on or before January 1 of each year. If the dues or any part thereof remain unpaid after March 15 of any year, a note of delinquency will be sent. After June 1, if the dues remain unpaid, the membership and all its rights and privileges may be suspended until such dues are paid in full.

Article 6 - ADMINISTRATION AND OFFICERS
The governance of the Corporation shall be vested in the Executive Committee and Board of Trustees.

Article 7 - BOARD OF TRUSTEES

SECTION 1
The Board of Trustees will have the ultimate authority for ensuring its fiscal welfare and financial stability; however, it will not interfere with the regular operation of the Corporation.

SECTION 2
In case of crisis, at the request of the Executive Committee, the Board will act as the mediator to resolve the dispute. The decisions of the Board of Trustees in these disputes will be binding.

SECTION 3
The Board of Trustees will be the custodian of all the assets of the Corporation and will make all decisions regarding disbursement of the funds in case of dissolution of the Corporation.

SECTION 4
The Board of Trustees will consist of nine members each being elected by the eligible voting membership. At least five Trustees of the Board will be from amongst the past presidents of the Corporation.

SECTION 5
The term of the trustees will be straddled.

SECTION 6
The term of the trustees will be limited to three years.

SECTION 7
Members of the Board of Trustees will not be members of the Executive Committee.

SECTION 8
A Chairperson of the Board will be elected by the Board amongst its members. The term of the Chairperson shall be limited to a maximum of two years. The Chairperson shall be ex-officio, nonvoting member of the Executive Committee and a voting member of the Finance Committee.

SECTION 9
The Board will act as the Trustee of the Endowment Fund of the Corporation. It will be responsible for long range planning, for constitutional and legal matters, and for safeguarding the tangible assets of the Corporation. The Board of Trustees is specifically required to pre-approve any expenditure item of more than $5,000.
SECTION 10
The Board will meet at least once a year. A record of the minutes of the meeting will be maintained. The President of the Corporation will attend the meetings of the Board as an ex-officio, non-voting member. Quorum consists of members attending duly convened meeting, except for pre-approval of expenditure items of more than $5,000 for which minimal of 5 affirmative votes are needed for passage of the item.

Article 8 - COMMITTEES

SECTION 1
The following shall be the Standing Committees of the Corporation. The chairpersons of these committees, with the exception of the Executive Committee, shall be appointed by the President and chosen from among the members of the Executive Committee. The remaining members of the committees may be selected from the voting and honorary membership.

1. Executive
2. By-Laws Committee
3. Membership
4. Finance
5. Medical Education and Research
6. Nominations and Elections
7. Publications and Public Relations
8. Awards and Recognition Committee
9. Endowment Fund Committee

SECTION 2
The Executive Committee shall be composed of the President, President-Elect, Secretary, Treasurer and the Immediate Past President and ten members-at-large.

SECTION 3
The Chairperson of the Special Programs and Entertainment shall be selected from the General Membership or their spouses.

SECTION 4
Nominations and Election Committee: The Nominations and Election Committee will consist of the President, the President-Elect, the Immediate Past President, one member of the Board of Trustees and one previous president. It will be chaired by the Immediate Past President.

SECTION 5
Endowment Fund Committee: This committee will consist of at least five members, two of whom will be from the Board of Trustees. The committee will be responsible for raising funds for charitable causes, and will make recommendations to the Executive Committee.

SECTION 6 – The Finance Committee shall be comprised of Chairman of the Board of Trustees, President, President-Elect, Treasurer, Past President, and 2 Members-at-Large (volunteers or elected by the Executive Committee.)

Article 9 - TERMS OF OFFICE

SECTION 1
The terms of office of the President, President-Elect and Secretary shall be for a period of one year. The term of Treasurer shall be for two years. The President may serve once only. Other officers and trustees may be re-elected.
SECTION 2
Terms of office of the members at large shall be for two years. Five members-at-large shall be elected during odd years and the other five members-at-large shall be elected during even years.

SECTION 3
In the event a member of the Executive Committee is unable to complete his/her term, a replacement will be appointed upon recommendation from the President with the approval of the Executive Committee, to complete the remaining elected term of the vacating member.

SECTION 4
In the event the office of President is vacated, the succession shall be by the President-Elect, Secretary, and Treasurer, in that order.

Article 10 - ELECTIONS
SECTION 1
Elections shall be held each year four weeks prior to the annual meeting of the general membership in the month of November or December.

SECTION 2
The Nominations and Elections Committee shall conduct the elections.

SECTION 3
Elections to all offices shall be by secret ballot. Candidates shall have the right to send their representatives to witness the counting of the ballot.

SECTION 4
The Nominations and Elections Committee shall invite nominations for various offices and trustees from the general membership by mailing the forms for nominations. The completed nomination paper, which should have the signature of the candidate signifying his/her consent, should be received by the deadline set by the Chairperson of the Nominations and Elections Committee. Applicants with incomplete or incorrect nomination forms will be given at least one week notice to correct the form prior to the nomination deadline. The Committee will submit the entire slate of candidates for vote to the eligible general membership by mail.

SECTION 5
Members of the Nominations and Elections Committee may not nominate themselves for office. They may not contest any elected position in the organization. If there is an insufficient number of nominees the Committee can submit nominations with the approval of the nominee.

Article 11- DUTIES OF OFFICERS
SECTION 1- Executive Committee
A. The Executive Committee shall have the duties and powers as ordinarily delegated to the governing board of a non-profit incorporated association. It shall govern and direct activities of the Corporation as described in this Code.
B. It shall fill any vacancies of the office of President-Elect, Secretary, and Treasurer and members of the Executive Committee by appointment in accordance with the provisions set forth in this Code.
C. It shall appoint all standing committees and direct their activities.
D. The Executive Committee shall determine the dues of the Corporation and review the dues as necessary.
E. It may remove by two-thirds vote any member from the rolls of the Corporation for conduct detrimental to the Corporation.
F. It may by two-thirds vote of its members present at the meeting that has been properly called, remove any member from any elected or appointed office. If the individual concerned is a member
F. cont’d: of the Executive Committee or Board of Trustee, he/she shall not vote on such motion

G. Any member, officer or trustee removed from the Corporation under Article 11, Section 1, paragraph E and F may appeal such a decision by the Executive Committee and ask for vote by the Board of Trustees. They may be re-instated by the approval of two-thirds majority of the membership at the General Body Meeting.

SECTION 2. President
A. The President shall be the Chief Executive Officer of the Corporation and shall perform all other duties incident to the office of President and such other duties as may be designated by the Executive Committee or Board of Trustees.
B. He/She shall preside at all meetings of the Corporation and of the Executive Committee.
C. He/She shall make such appointments as authorized by Code, Executive Committee or Board of Trustees.
D. He/She shall designate all official delegates and representatives to other groups.
E. He/She shall appoint such Special and Ad Hoc Committees as may be necessary to further the Corporation's objectives and he/she may discontinue any such committee when its purpose has been served, in consultation with the Executive Committee or Board of Trustees.
F. The president is authorized to donate up to $5,000.00 to non-profit groups or events without prior approval of the Board of Trustees or Executive Committee.

SECTION 3 - President-Elect
A. The President-Elect shall perform the duties of the President in his/her absence.
B. The President-Elect may be assigned one or more special projects and is the Endowment Chair.

SECTION 4 - Secretary
The Secretary shall keep the minutes of the meetings of the Corporation, the Executive Committee and Board of Trustees, and perform all duties assigned to him/her by the President, Executive Committee or B.O.T.

SECTION 5 - Treasurer
A. The Treasurer shall receive and be the custodian of the funds of the Corporation, and will chair the Finance Committee.
B. He/She shall present to the Board of Trustees a proposed budget for the ensuing fiscal year and this budget in the final form shall be approved by the Board of Trustees prior to the beginning of the fiscal year. Any single expenditure item of more than $5,000 should be pre-approved by the Board of Trustees.
C. He/She shall make a complete financial report at the annual business meeting of the Corporation. The financial report should be audited by a C.P.A.
D. Life membership dues will be placed in a separate income bearing account. Finance committee is authorized to spend up to 100% of the income for operating expenses.
E. Endowment Fund: The Corporation will establish an Endowment Fund distinct from other finances. Endowment fund will be maintained by a 3rd party administrator. Fifteen percent of the gross revenues for Endowment fund-raising events will go toward administrative costs. Up to 4% of the market value of the Endowment fund, averaged over previous 3 years, may be distributed annually for Charity and operating expenses, while continuing the growth of the corpus. Fifty percent (2% of the market value) of the distribution of the funds will be used for charitable giving, including a $1,000.00 medical student scholarship and fifty percent (2% of the market value) of the distribution may be used for operating expenses of the corporation. The scholarship selection will fall under the Awards & Recognition Committee.
F. Funds may be added to the Endowment Fund by donations or by fund-raising events. After paying for the expenses and contribution to the charitable cause (for which the fund-raising event was held), the moneys generated from the fund-raising activity will be added to the AIPNO Endowment Fund. All unidentifiable charitable contributions to the Corporation will be deposited in the Endowment Fund account.
Article 12 - MEETINGS

SECTION 1

There shall be at least one meeting of the entire membership each year at a place and date designated by the Executive Committee.

SECTION 2

The time and place of all meetings shall be decided by the Executive Committee. The notice of the time and place of all meetings, except those of the Executive Committee or Board of Trustees shall be mailed to all officers and members at least 45 days prior to such meetings. Special meetings may be called by the President, by majority of the Executive Committee or Board of Trustees, or by 10% or 25 members, whichever is the larger.

SECTION 3

The Executive Committee shall meet once a month or as needed to conduct its business.

SECTION 4

If a member of the Executive Committee fails to attend three consecutive meetings of the Executive Committee without a proper excuse, he/she may be dismissed from the Executive Committee by two-thirds of its members.

SECTION 5

The quorum for any meeting of the Executive Committee or Board of Trustees shall consist of a simple majority.

SECTION 6

Parliamentary Procedure - In the absence of any provision in the Code of the Corporation, Board of Trustees, Executive Committee, and all Committee Members shall be guided by the Parliamentary Rules as used and contained in the current edition of the Roberts "Rules of Order".

Article 13 - LIABILITY OF MEMBERS

No member of the Corporation shall be personally liable to the creditors of the Corporation for any liability or indebtedness, and any and all creditors shall look only to the assets of the Corporation.

Article 14 - AMENDMENTS

SECTION 1

This Code of Regulations, or any articles or sections or any part thereof may be amended, repealed or new Code adopted by the affirmative vote of two-thirds of those members entitled to vote at a meeting duly called and held for that purpose. The quorum for such a meeting shall be 20% or 40 members, whichever is the larger number of members entitled to vote.
### Milestones 2011

**2011**

*President: Sandhia Varyani, M.D.*

20th Annual Chiraag Fundraiser:
- **Beneficiary:** Marion Sterling Library Renovation Project of the Cleveland Metropolitan School District
- **Chair:** Dr Appachi
- **Chief Guest:** Anand Julka
- **Donation:** $10,000.00 and Chiraag Continuing Medical Education Program

- Karaoke Night at Landerhaven, sponsored by Gregory Ochalek, CFP of AXA Advisors on March 18, 2011
- Japan Earthquake donation on April 5, 2011
- BAPS Health Fair, May 1, 2011
- By-Laws review & amendments
- Social Dinner at Saffron Patch, Sept. 15, 2011
- Annual Dinner
  - **Chief Guest:** Dr. Michael Nochomovitz
  - President, University Hospitals Physician Services
- Annual Continuing Medical Education, Nov. 5, 2011
- Acquisition of CPA firm - Dingus & Daga, Inc.
- Shiva Vishnu Temple Health Fair, Sept. 18, 2011
- Bonding of Officers and Board of Trustees.
- Contribution to Project SEVA
- Contributions to Philanthropia
- YATRA Medical Camps in Rishikesh, India
**Milestones 2012**

**2012**

*President: Elumalai Appachi, MD*

- Humanitarian Services Committee, Medical Yatra mission to Gondal, & Ambaji, Guj (India)  
  January 27 to Feb. 2, 2012
- Establish of Directors & Officers Insurance, March 2012
- Twenty-first Annual Chiraag Fundraising Dinner & CME program:  
  Beneficiary: American Heart Association
  **Chief Guest:** David L. Bronson, MD, FACP, President of American College of Physicians
  **Chair:** Dr. Beejadi Mukunda
  **Donation:** $15,000.00
- Reinstatement of “The Pulse” on-line AIPNO magazine by Drs. Anupa & Milind Deogaonkar
- Karaoke Night at Bamboo Gardens, July 21, 2012
- Shiva Vishnu Temple & AIPNO Health Fair on September 16, 2012
- Golf Outing at Signature of Solon with Dinner at Saffron Patch on September 23, 2012
- Historic election with over 33% of eligible membership casting ballots.
- Annual Dinner ‘Physicians Seminar’ on November 10, 2012 at Ahuja Medical Center in Beachwood.
- AIPNO launches a new, updated website engineered by Dr. Anupa Deogaonkar.
  First induction of “Honorary Members” at the Annual Dinner.
- Seventh Annual New Year’s Eve Gala - Executive Caterers of Landerhaven
MILESTONES 2013

2013

President: Beejadi Mukunda, M.D.

- FICA: Republic Day Celebrations, invited guest speaker
- American Heart Association: Sponsored the Power of Laughter Workshop and Comedy luncheon in June 2013
- Participation in Dinner Reception for Indian Ambassador to US, Honorable Ms. Nirupama Rao
- Participation in the Planning Committee of the first Global Impact Award by Cleveland Council of World Affairs to the Former Ambassador to India and Former Governor of Ohio, Richard Celeste
- 22nd Annual Fundraiser “Chiraag”, first sold-out event in the history of AIPNO, with record amount of monies collected.

Chairperson – Ranjit Tamaskar, M.D.
Beneficiary – Alzheimer’s Association, Cleveland Area Chapter, Hospice of Western Reserve, Food Bank of Cleveland
Chief Guest – Chief Justice Maureen O’Connor, Supreme Court of Ohio

- CME at Lake West Hospital, facilitated by LakeHealth
- AIPNO Pulse and updating of AIPNO website
- Meeting with AAPI President Elect, Ravi Jahagirdar, MD, and requested hosting of Annual Conference of AAPI and Governing Body Meeting. Apprised of improvement in availability of convention facilities in Cleveland. Requested better representation of AIPNO at the national level in AAPI
- Efforts throughout the year to rejuvenate and resurrect AIPNO, improved communication with members and families, improved relationship between the Executive Committee and Board of Trustees.
- Efforts to change bylaws to improve operations of the organization.
- Idea of Legacy Gift and third party management of Endowment fund to provide perpetuity to the organization via an Ad-hoc committee chaired by Vasu Pandrangi, MD
- Karaoke Night, June 22nd at Bamboo Gardens
- Golf Outing at Signature of Solon Country Club, June 2nd
- Golf Outing at Hawthorne Valley Country Club, July 28
- Shiva Vishnu Temple Health Fair, September 15th
- BAPS Swaminarayan Temple Health Fair, September 29th
- Sponsorship of Downtown Cleveland Alzheimer’s Walk, Oct. 13th
- 30th Annual Dinner with Research Showcase at Cleveland Convention Center & Global Center for Health Innovation, November 2, 2013

Chief Guest – U.S. Senator Sherrod Brown

- Invitation and participation of majority of health care systems, nursing facilities, business leaders and media involvement.
- Research poster competition to showcase the research activities from Northern Ohio, to help network between researchers, physicians and nurse/nurse practitioners in training with practicing physicians with the vision to attract, recruit and retain talent in Northern Ohio
- Kala, Art exhibition and Sale
- General Body Meeting, December 15
- Encouragement to involvement of non-Indian physicians and healthcare workers with Medical Yatra
- Encouragement to start a Youth arm of Medical Yatra to encourage participation of younger families of AIPNO and their friends.
- Encouragement to Project Seva and changes in bylaws to help facilitate reinstatement of support to Project Seva
MILESTONES 2014

2014
President, Ranjit Tamaskar, M.D.

- FICA: Supported and participated in Republic Day Celebration
- 23rd Annual Fundraiser Chiraag
  Chairperson – Dr. Umesh Yalavarthy
  Chief Guest – Dr. Kris Ramprasad, President, State Medical Board, OH
  Beneficiary – Kidney Foundation $21,000, Dyslexia Association 3,000, Shiksha Daan $3,000
- CME at Lake West Hospital, facilitated by Lake Health System
- Picnic at Metro Park, organized by Dr. Umesh Yalavarthy
- Two Golf Outings at Signature of Solon, organized by Dr. Arun Gupta and Dr. H. P. Sundaresh
- Karaoke Night, Bamboo Garden, organized by Dr. Parag. Kanvinde
- Health Fair at Shiva Vishnu Temple, organized by Dr. Lal Arora
  Chief Guest – Dr. David Perse
- New partnership with Cleveland Foundation to manage AIPNO Endowment Fund
- Legacy Gift for Cleveland Sight Center: More than 7000 preschool children will be screened for vision every year for next five years.
- Sponsored “White Cane Walk” a fundraising event for Cleveland Sight Center
- Medical Yatra, Sponsored one Medical Resident to India, both AIPNO and non AIPNO members provided medical care in Rural India
- 31st Annual Dinner and Second Research Showcase at Cleveland Convention Center
  Chief Guest – Mr. Sam Pitroda
- Organized and hosted APPI Governing Body Meeting at Cleveland Convention Center
- Membership drive that resulted in more new life members to the organization and participation of physicians in training in AIPNO activities
- General Body Meeting on December 13th at Ahuja Hospital
- Ninth annual New Year’s Eve Gala, Dr. Umesh Yalavarthy and Dr. Arun Gupta
- Participated in meetings that led to the partnership of “Helping Hands” and SEVA International to create a social network of volunteers to help the community
- Represented AIPNO at Cleveland City Hall for Asian Heritage Day

Distinction:
Dr. Anupa Deogaonkar was awarded “Bharat Gaurav”
Dr. Beejadi Mukunda, Chief of Staff Elect and Director of Medicine, Hillcrest Hospital
Dr. Rajesh Sharma, Chief of Staff, Lutheran Hospital
Dr. Sandhia Varyani, Chair Robotic Surgery Committee, UH
Dr. Praveer Kumar, Chief of Medicine, Bedford Hospital
MILESTONES 2015

2015

President, Umesh Yalavarthy, M.D.

- **FICA**: Supported and participated in Republic Day Celebration, January 24
- Supported Annual **Medical Yatra** trip to Mysore/Bangalore, India, January 1828
- 24th Annual Endowment Fundraiser, **Chiraag**, April 25
  - **Chairperson**: Ravi Krishnan, M.D.
  - **Chief Guest**: Sister Judith Ann Karam CSA, FACHE of SVCH
  - **Beneficiary**: Minds Matter, Cleveland Chapter, $16,000.00, Ride for World Health, $500.00
- **CME Symposium** at Lake Hospital, facilitated by Lake Health System
- Supported Shiva Vishnu Temple **Health Fair** on May 17
- Summer **Golf Outings** on June 7 and August 9 at Signature of Solon Country Club, chaired by H.P. Sundaresh, M.D. and Arun Gupta, M.D.
- Chaired **AIPNO Family** Picnic on August 22 at Brecksville Reservation
- Karaoke night at bamboo gardens on September 12
- Legacy gift beneficiary, sight center, Donation: $20,000
- Met with Bill Spiker, Director of Development for Cleveland Sight Center to facilitate coordination between AIPNO and sight center
- Attended Cleveland Sight Center’s annual gala, Spellbound, September 26
- Supported **BAPS Health Fair** on October 4.
- **AIPNO 32nd Annual Dinner, Annual Report, 3rd Research Showcase and 1st Annual Huron, Hillcrest and Southpointe Alumni Dinner** on October 24 at the Global Center for Health Innovation.
  - **Chief Guest and Key Note Speaker**: Jeffrey Susman, M.D., Dean, College of Medicine, NEOMED
- General Body meeting on November 28

**Distinctions:**
- **Dr. Beejadi Mukunda**: Chief of Staff, Hillcrest hospital
- **Dr. Umesh Yalavarthy**: “Physician Collaboration Excellence award,” University Hospitals, Geauga medical center
- **Dr. Mohan Durve**: “PRAVASI RATTAN AWARD,” from NRI Welfare Society of India
- **Dr. Mohan Durve**: “THE MOST DISTINGUISHED SERVICE AWARD”, American Association of Physicians of Indian Origin (AAPI)
- **Dr. Mona Gupta**: Co-chair palliative care for Indo American Cancer Association
- **Dr. Mona Gupta**: Vice-chair for the Visionary Executive Leadership Team of Elite Women Around the World
MILESTONES 2016

2016

President, Ravi Krishnan, M.D.

- **FICA:** Supported and participated in Republic Day Celebration, January 23
- Supported Annual **Medical Yatra** trip to Dharampur & Guj, Jan 18 to Jan 28
- 25th Annual Endowment Fundraiser, **Chiraag,** April 9
  - **Chairperson:** Harigopal Balaji, M.D.
  - **Chief Guest:** Scott Hamilton, Olympic Gold Medalist
  - **Beneficiary:** Scott Hamilton CARES Foundation
  - **CME Symposium** at Lake Hospital, facilitated by Lake Health System
- Supported Shiva Vishnu Temple **Health Fair** on May 15
- Fall **Golf Outing** on September 18 at Signature of Solon Country Club, chaired by H.P. Sundaresh, M.D. and Arun Gupta, M.D.
- Legacy gift beneficiary, sight center, Donation :$20,000
- Attended Cleveland Sight Center’s annual gala, Spellbound, September 24
- Supported **BAPS Health Fair** on October 2.
- **AIPNO 33nd Annual Dinner, Annual Report, 4th Research Showcase and 2nd Annual Huron, Hillcrest and Southpointe Alumni Dinner** on October 22 at the Global Center for Health Innovation.
  - **Chief Guest:** Campy Russell, Cavaliers Director of Alumni Relations and FOX Sports Analyst for “Cavaliers Live” Pre & Post Game Show
  - **Key Note Speaker:** Harry Boomer, Anchor/Reporter Cleveland 19 News
**MILESTONES 2017**

**2017**

*President, Hari Balaji, M.D.*

- Supported Annual **Medical Yatra** trip to Bhopal, MP, January of 2017
- Held a “Karaoke Night” at Holiday Inn on April 22, Dr. Rupesh Raina, CME speaker.
- Medical Yatra Recognized by Million Dollar Roundtable
- Supported Shiva Vishnu Temple **Health Fair** on May 21
- Supported **Golf Outings** on June 25 and September 10 at Signature of Solon Country Club, chaired by H.P. Sundaresh, M.D. and Arun Gupta, M.D.
- Legacy gift beneficiary, sight center, Donation :$20,000
- “Yoga in Medicine” a introduction to Yoga CME conducted in association with SEVA and Metro Health.
- Attended Cleveland Sight Center’s annual gala, Spellbound, September 15
- **AIPNO 34nd Annual Dinner, Annual Report, 5th Research Showcase, 26th Chiraag and 3rd Annual Huron, Hillcrest and Southpointe Alumni Dinner** on September 23 at the Global Center for Health Innovation.
  
  **Chief Guest – Diane Wish,** CEO at Centers for Dialysis Care
- New Website @ www.AIPNO.org enhancing user friendly features.
MILESTONES 2018

2018

President, Mona Gupta, M.D.

- Initiated AIPNO support to “Visa, Passport and Consular Services Day” in collaboration with TANA (Telugu Association of North America) and FICA (Federation of India Community Associations of Northeast Ohio), January 20
- Supported and participated in FICA republic day celebration, January 20
- Combined EC/ BOT meeting and ratification of nomination committee appointments, January 21
- Bylaws review and clarification of Board and Officers selection, January 21
- Supported Medical Yatra trip to Gujrat/Banglore, India and Jaipur gift of artificial limb appreciated by Lions Club and community, January 11-18 and 19-25
- Global Grant to Women’s Clinic-Medical Yatra, February
- Meeting with Cleveland Foundation to review AIPNO endowment fund management and year-end financial information, February 15
- Initiated new endeavor for AIPNO by supporting local and national dance talent and sponsored “Naach Di Cleveland” dance competition from across the country hosted by CWRU teams at Playhouse Square, February 17
- Initiated a new endeavor for AIPNO “Amit Tandon- live in Cleveland” show. Provided special discount for AIPNO members, March 9
- Initiated a new tradition for AIPNO - Community collaboration in Cleveland- Holi Ke Rang Apno Ke Sang/joint venture in collaboration with other organizations-ICAGA (Indian Community Associations of Greater Akron) and Marwari Association of Ohio (MAOH), March 18
- Invited Chief guest at BAPS “Shri Swaminarayan Jayanti and Shri Ram Navami” celebration, April 8
- First ever Bollywood show in history of AIPNO –fundraiser “Mystic India” attended by an audience of 1500. Beneficiary: Benjamin Rose Institute on Aging. Huge marketing for AIPNO via media, local grocery stores, collaboration with local organizations, social media, online newspaper, e-blasts, electronic marketing, local distribution, electronic and postal mails, April 14
- Media involvement both television and newspaper to promote “Mystic India”
- Supported Cleveland International Hall of fame to recognize Inductee Dr. Atul Mehta-AIPNO member and past president. April 17
- Cleveland International hall of Fame inductions ceremony sponsored and promoted our annual dinner. April 17
- Presented check to our Chiraag Beneficiary 2017- Recovery Resources at their Annual Gala from April 18
- First time project for AIPNO- Sponsored NEOMM - Northeast Ohio Maratha Mandal fundraiser show to promote AIPNO fundraiser “Mystic India” show, April 27
- Invited Guest at Shiva Vishnu Temple Health Fair organized by Dr. Gopal Kapoor, May 18
- Golf outing at Signature of Solon Country Club, chaired by Dr. Arun Gupta, June 18
- Meeting with AAPI president Dr. Gautam Samadder, and chairman of the board of trustees, Dr. Mohan Kothari and requested hosting of governing AAPI board meeting in Cleveland, July 3
- First time project for AIPNO- Sponsored India food fair, St George’s Church, and marketed our annual fundraiser dinner, July 18
MILESTONES 2018

2018 continued

• Supported FICA Independence day celebration and represented AIPNO, August 18
• Sponsored Shiksha Daan Volunteer Appreciation Luncheon at Shiva Vishnu Temple, September 8
• First time endeavor-Sponsored India fest USA, participated in awards ceremony and promoted our annual fundraiser dinner, September 15
• Invited as Lead Guest at the inauguration ceremony of BAPS Charities Health Fair at BAPS Temple, September 23
• Invited to attend Cleveland Sight Center “Spellbound” Dinner & Fundraiser, September 28
• First time initiative- Sponsored Annual Fundraiser for “Save A Child” program to help the orphan and poor children in India, October 5
• CME at South Pointe Hospital facilitated by American College of Family Physicians October 6
• 35th Annual Dinner, Fundraiser and RSC at a new venue - Public Auditorium, October 6
  
  Chief Guest: Todd Park, Chair Devoted Health
  
  Keynote speaker - Rohit Khanna US Rep California
  
  Beneficiary - Mayor Jackson Scholarship Program administered through “College Now”

• Invitation and participation by major health systems, nursing facilities, business leaders, and media involvement
• Plan to attend and present check to AIPNO Mystic India Beneficiary- Benjamin Rose Institute on Aging at their Annual Gala, November 8
• General body meeting, December 9
• Quarterly Executive Committee meetings- Jan 21, April 3, June 19
• Legacy gift beneficiary, Cleveland Sight center, donation $20,000
• Ongoing efforts throughout the year to reinvigorate and revitalize AIPNO improve communication between members and families; improve relationship between the membership, executive committee, and the board of trustees
• Increased social media presence recognizing AIPNO events and marketing our sponsors.
• Ongoing efforts throughout the year for updating AIPNO website making it more user friendly to market AIPNO events.
• Membership drive that resulted in more new life members to the organization and participation of physicians in training with AIPNO activities.
• New public platform to AIPNO by collaboration with local organization, Mystic India Bollywood show and extensive marketing via social media, TV media, newspapers, online, newsletters, advertisements

Distinctions

Dr. Murthy Vuppala awarded Appreciation from Lions.

Dr. Atul Mehta inducted at the Cleveland International Hall of Fame

Dr. Ajit Kothari, Chairman Board Of trustees, American Association of Physicians of Indian Origin (AAPI)
**MILESTONES 2019**

**2019**

*President: Harbhajan Parmar, MD*

- Supported Medical Yatra trip to Gandevi in the western part of India, January
- Organized an AIPNO Picnic at Highland Heights park for all AIPNO members on June 9, supported by Corey Kimble of Merrill Lynch
- Supported the June 30 Golf Outing at Signature of Solon, organized by Dr. Arun Gupta
- Continued with support for the Annual Fundraiser for “Save A Child” program to help orphaned and poor children, July
- Initiated AIPNO’s First Health Fair, coordinated with University Hospitals on August 24 at Willow Praise Church in Willowick, OH, offering consultation with 13 specialties, education, vaccines and testing
- CME at Regency Hospital on November 9
- 36th Annual Dinner, Fundraiser and RSC at Landerhaven, Mayfield Heights on November 9
  - Chief Guest: Melody J. Stewart, Justice of the Supreme Court of Ohio
  - Keynote speaker – Marc Byrnes, Chairman of Oswald Companies
- Invitation and participation by major health systems, nursing facilities, business leaders, and media involvement
- General body meeting in December 2019
- Legacy gift beneficiary, Cleveland Sight Center, completed $100,000 commitment in March of 2019
- Supported the Board of Trustees in the selection of AIPNO’s second Legacy Gift beginning 2020

**Distinctions**

*Dr. Rupesh Raina:* Most Distinguished YPS (Young Physician) Award of 2019 at the AAPI Annual meeting in Atlanta., GA on July 4, 2019.

*Dr. Mona Gupta:*
- Advanced to American Geriatric Society (AGS) Fellow status.
- Co-chair palliative care at American Geriatric Society and Indo-American Cancer Association
- Chair, Health and Wellness, IndiaFest USA

*Dr. K.V. Gopalakrishna:*
- Laureate Award by ACP Ohio Chapter on Oct. 17, 2019

*Dr. Neil Mehta:*
- Appointed Associate Dean for Curricular Affairs at Cleveland Clinic Lerner College of Medicine and Case Western Reserve University
- Jones Day Endowed Chair in Medical Education at Cleveland Clinic

*Dr. Jaya and Mr. Ramesh Shah:*
- Honored by the India Association of Greater Akron for 20 years of Humanitarian Services to the indigent rural population of India on Oct. 19, 2019
**AssociAtion of IndiAn PhysiciAns of northern ohio**

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*Denotes Life Member*

† Deceased
* † Bhaiji, Khushal C. MD
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Allergy & Immunology

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Internal Medicine

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Cardiology

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Internal Medicine

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Emergency Medicine

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Dermatology

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Allergy/Asthma

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Anesthesia

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Cardiology

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Pathology

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Infectious Disease

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Pulmonary Medicine

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Internal Medicine & Geriatrics

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Internal Medicine

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Pain Management

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ENT

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Neonatology

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Urology

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Occupational Medicine

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Pulmonary

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Cardiology

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Orthopedics

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Orthopedics - Retired

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Cardiology  

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Neurology  

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_Cardiovascular Med./Intervention_  

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Gastroenterology - Retired  

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Surgery, Plastic  

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Internal Medicine - Retired  

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_Nephrology_  

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Neurology, Pediatric

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Internal Medicine

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Internal Medicine

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Nephrology

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Radiation Oncology - Retired

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Radiology

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Neurology

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Nephrology

* Rao, Kancherla S. MD
6140 South Broadway ............... Office: 440-233-7232
Lorain, OH 44053
Psychiatry

* Rao, L.C. MD
2088 Oxford Circle
Hinckley, Ohio 44233
Pulmonary Medicine

*Rao, Neelima MD
4176 Route 306
Willoughby, OH 44094
Internal Medicine

*Rao, Pratibha, MD
Endocrinology, Diabetes

*Rao, Shakuntala MD
6803 Mayfield Rd ...................... Office: 440-460-2838
Mayfield Hts, OH 44124
Pediatrics

*Rao, Sheela M. MD
10701 East Blvd. (Palms W113) ...... Office: 330-733-5454
Cleveland, OH 44106
Pediatrics

*Rao, Vikram MD
36060 Euclid Ave ...................... Office: 440-269-8346
Willoughby, OH 44094
Vascular Surgery

* Ravishankar, K.C. MD
7215 Old Oak Blvd #A410 .......... Office: 440-826-9221
Middleburg Hts, OH 44130
Neurologist

* Reddy, Kalva S. MD
436 E. River Street #2 ............. Office: 440-323-8515
Elyria, OH 44035
Anesthesia

* Reddy, Madhu MD
5229 Fleet Ave ......................... Office: 216-524-6767
Cleveland, OH 44105
Internal Medicine

* Reddy, S. Sethu MD
Internal Medicine

* Denotes Life Member
† Deceased
* Rohira, Lalsingh MD  
347 Midway Blvd. #306 . . . . . . . . . . . . . . Office: 440-324-5430  
Elyria, OH 44035  
Psychiatry

Roy, Aparna, MD  
11100 Euclid Ave. . . . . . . . . . . . . . . . . Office: 440-879-3235  
Cleveland, OH 44106  
Pediatric/ICU

* Roy, Somnath D. MD  
125 E. Broad St. #122. . . . . . . . . . . . . . Office: 440-329-7350  
Elyria, OH 44035  
Internal Medicine

* Sandhu, Satnam S. MD  
4200 Warrensville Ctr Rd #320 . . . . Office: 216-491-7205  
Warrensville Hts, OH 44122  
Nephrology

* Saraiya, Jayshree MD  
6225 Lochmoor Court . . . . . . . . . . . . . . Office: 330-348-9558  
Solon, OH 44139  
Internal Medicine - Hospitalist

* Saraiya, Rajesh MD  
6225 Lochmoor Court . . . . . . . . . . . . . . Office: 440-263-8439  
Solon, OH 44139  
Internal Medicine – Hospitalist

*Saralaya, Sparsha, MD  
18101 Lorain Ave. . . . . . . . . . . . . . . . . Office: 216-445-8383  
Cleveland, OH 44111  
Internal Medicine

* Sawhny, Bhupinder MD  
7255 Old Oak Blvd #C408 . . . . Office: 440-891-8880  
Middleburg Hts., OH 44130  
Neurosurgery

* Sehgal, Ashwini MD  
2500 Metro Health Drive . . . . . . Office: 216-778-7728  
Cleveland, OH 44109  
Nephrology

* Sehgal, Bindu MD  
25200 Center Ridge Rd, Suite 2450  
Westlake, OH 44145  
Family Practice

* Sekhon, Baldev MD  
29099 Health Campus Dr. #380 . . Office: 440-827-5390  
Westlake, OH 44145  
Cardiothoracic Surgery

* Sequeira, Thomas Mark MD  
11201 Shaker Blvd . . . . . . . . . . . . . . Office: 216-368-7065  
Cleveland, OH 44104  
Cardiology

* Shaikh, Aasef, MD  
11100 Euclid Avenue . . . . . . . . . . . . . . Office: 313-850-8604  
Cleveland, OH 44110  
Neurology, Neurotology, Movement Disorders

* Shah, Ajit C. MD  
7215 Old Oak Blvd #A14 . . . . Office: 440-816-2782  
Middleburg Hts., OH 44130  
ENT

* Shah, Arunika N. MD  
Physical Medicine/Rehabilitation

* Shah, Chirag MD  
UH Parma Medical Center . . . . Office: 440-743-3000  
Anesthesia

* Shah, Jaya MD  
Pediatrics - Retired

*Shah, Kalyani MD  
9500 Euclid Avenue C21  
Cleveland, OH 44195  
Physical Medicine & Rehabilitation

* Shah, Pankaj MD  
14519 Detroit Ave. . . . . . . . . . . . . . . Office: 216-529-7145  
Lakewood, OH 44107  
Anesthesia

* Shah, Shashin MD  
9700 Garfield Blvd #103 . . . . Office: 216-641-0600  
Garfield Hts, OH 44125  
Pediatrics

* Shah, Surekha  
2500 Metro Health Drive . . . Office: 216-778-1016  
Cleveland, OH 44109  
Physical Therapy

* Shah, Tushar MD  
Emergency Medicine

Shah, Vaishal, MD  
9500 Euclid Ave. R03-60 . . . . Office: 216-444-8488  
Cleveland, OH 44195  
Sleep Medicine

*Shaikh, Aasef, MD, PhD  
11100 Euclid Avenue . . . . . . . . . . . . . Office - 216-381-6736.  
Cleveland, OH 44110  
Neurology, Neurotology, Movement Disorders

* Sharan, Vishwa MD  
. . . . . . . . . . . . . . . . . . . . . . . . Office: 800-646-9000  
Radiation Oncology

*Sharma, Rajesh MD  
Cleveland, OH 44113  
Internal Medicine

* Sharma, Trilok C. MD  
7255 Old Oak Blvd #C208. . . . Office: 440-816-2708  
Middleburg Hts., OH 44130  
Cardiology

* Denotes Life Member  
† Deceased
* Shekar, Raja MD  
3609 Park East Dr #207  . . . . . . . . . . . . . . Office: 216-360-0456  
Beachwood, OH 44122  
Infectious Disease

* Shinde, Sharad MD  
130 Jefferson St. #3A  
Port Clinton, OH 43452  
OB/GYN

* Shivadas, Anita MD  
9500 Euclid Ave . . . . . . . . . . . . . . . . . . . . . . Office:(216) 444-1084  
Cleveland, OH 44195  
Internal Medicine

* Sidhu, Kanwaljit, MD  
2500 Metrohealth Drive . . . . . . Office: 216-778-4801  
Cleveland, OH 44109  
Anesthesia

* Sidhu, Tejbir MD  
Metrohealth Drive. . . . . . . . . . . . . . . . . . . . . . . . . Office: 216-778-4809  
Cleveland, OH 44109  
Anesthesiology

* Singh, Annapurna  
11100 Euclid Ave BHC3200 . . . . Office: 216-844-8503  
Cleveland, OH 44106  
Ophthalmology

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Cleveland, OH 44195  
Ophthalmology

* Singh, Chandra V. MD  
125 E. Broad Street Ste 119 . . . . Office: 440-329-7397  
Elyria, OH 44035  
Internal Medicine

* Singh, Kuldeep MD  
Emergency Medicine - Retired

* Sitabkhan, Rayecka MD  
Pediatrics – Retired

Sivalingam, Sri MD  
6770 Mayfield Rd. . . . . . . . . . . . . . . . . . . . . . . . . Office: 440-461-6430  
Mayfield OH 44124  
Urology

Sivaraman, Indu, MD  
35040 Chardon Rd. . . . . . . . . . . . . . . . . . . . . . . . . Office: 440-946-1200  
Willoughby Hills, OH 44094  
Pediatric Neurology

* Sivashankaran, Subhalakshmi MD  
11100 Euclid Ave . . . . . . . . . . . . . . . . . . . . . . Office: 216-844-3506  
Cleveland, OH 44106  
Anesthesia

* Sogal, Ramesh MD  
Pain Management

* Somasundaram, Mey, MD  
6701 Rockside Rd. # 100 . . . . . . . . . . . . . Office: 216-382-0418  
Independence, OH 44139  
Internal Medicine

* Sreshtha, Michael, RPh, MS. CDE  
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Cleveland, OH 44195  
Neurology

†Sundaresh, H.P. MD  
Pediatrics

* Sundaresh, Shailaja MD  
Retired  
OB/GYN

* Suresh, Keelapandal R. MD  
21851 Center Ridge Rd #3309 . . . . Office: 440-333-8322  
Rocky River, OH 44116  
Nephrology

Suri, Anu, MD  
33100 Cleveland Clinic Blvd. AVW3-2 . . Office: 440-695-4330  
Avon, OH 44011  
Pulmonology and Critical Care Medicine

* Swamy, Kumar MD  
Allergy - Retired

* Swarup, Namita MD  
2500 Metrohealth Drive . . . . . . . . . . . . . Office: 216-778-2687  
Cleveland, OH 44109  
Pediatrics

* Tamaskar, Ila R., MD  
6525 Powers Blvd . . . . . . . . . . . . . . . . . . . . . . . . . Office:440-743-4747  
Parma, OH 44129  
Oncology

* Tamaskar, Mandakini  
Anesthesia

* Tamaskar, Ranjit B. MD  
36100 Euclid Ave. Suite 270 . . . . Office: 440-946-8300  
Willoughby, OH 44094  
Internal Medicine

* Tamaskar, Shobha MD  
OB/GYN - Retired

* Tandra, Brahmaiah MD  
8577 E. Market St. . . . . . . . . . . . . . . . . . . . . . . . . Office: 330-856-6663  
Howland, OH 44484  
Pediatric Psychiatry

* Denotes Life Member  
† Deceased
*Tandra, Usharani MD
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Physical Medicine & Rehabilitation

* Thaker, Niranjana Shah MD
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* Thakore, Yuan MD

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Cardiology

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Anesthesiology

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Euclid, OH 44117
Nephrology

*Zanotti, Salena, MD
35900 American Way Suite A Office: 440-930-6200
Avon, OH 44011
OB/GYN

* Denotes Life Member
† Deceased
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<td>Perinatology</td>
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<td>Psychiatry</td>
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<td>Rohira, Lalsingh MD</td>
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<td>Shah, Bharat J. MD</td>
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<td>Pulmonary Medicine</td>
<td>Dacha, Harinathrao MD</td>
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<td>Oncology</td>
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<td>Vasavada, Sandip MD</td>
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1999 – Cleveland Sight Center
2000 - Center for Prevention of Domestic Violence
2001- The City Mission
2002 - Make-A-Wish Foundation
2003 - Partnership for A Safer Cleveland
2004 - Cystic Fibrosis Foundation, Rainbow Chapter
2005 - Leukemia & Lymphoma Society, Inc.
2006 - ALS Association
2007 - Ronald McDonald House
2008 - Metro Health Burn Fund
2009 - The Lymphoma & Leukemia Society, Northern Ohio Chapter
2010 - The Diabetes Association of Cleveland
2011 – Cleveland Metropolitan School District
2012 – The American Heart Association
2013 – The Alzheimer’s Association, Cleveland Area Chapter
2014 – The Kidney Foundation of Ohio
2015 – Minds Matter, Cleveland
2016 – Scott Hamilton C.A.R.E.S. Foundation
2017 – Recovery Resources
2018 – Benjamin Rose Institute on Aging – Spring
2018 – Mayor Frank G. Jackson’s Scholarship Fund and
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Project SEVA, Dyslexia Association, Shiksha Daan, Ride for World Health,
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