

Introduction

The Vasculitis Foundation hosted the 2nd International Vasculitis Research Consensus Conference on Friday, April 20, 2012, at the Hilton Chicago O'Hare, Chicago, Illinois. Gary S. Hoffman, MD, functioned as the program moderator and facilitator.

The purpose of the conference was to utilize the combined skills and experience of leading experts in vasculitis from different subspecialties and other scientific fields to evaluate the Vasculitis Foundation Research Program and explore new areas of inquiry that the Foundation should support over the next five years.

Throughout the day, the group focused on the following questions:

- What should be favored areas for vasculitis research based on current knowledge?
- What should be the Vasculitis Foundation's role in international research?
- How can we best increase synergies among patients, investigators and institutions worldwide?
- What is the best use of the Vasculitis Foundation's limited research budget?
- How can we build that financial resource more effectively?

After a brief introduction of the investigators and a description of their personal research interests, Dr. Don Gebhart, former chair of the Research Program, presented a summary of the research program from its inception in 2001 through the 2012 funding cycle.

VF Research Program Background Summary

The goal of the VF Research Program is to fund studies using the best science to improve the quality of life of vasculitis patients or add knowledge that will ultimately assist in finding a cure for vasculitis.

The VF Research Program funded its first study in 2002 and through 2012 has funded 26 studies for a total of \$1,353,376. The research fund currently has \$749,981 in it.

Many changes were made in the program emanating from suggestions from the 1st International Vasculitis Research Consensus Conference in January 2006.

The topics for studies include: etiology, immunopathogenesis, diagnosis, treatment and outcomes or social effects of vasculitis. Since that time we have also added co-morbidities as another topic.

Application Process

- Modified NIH application
- Annual deadline in July/August
- Notification of application deadline
 - VF, NORD, AARDA websites
 - Medical meetings
 - Community of Science: www.fundingopps.cos.com
 - ANCA and Vasculitis Workshop attendee list
 - EUVAS membership list
 - Vasculitis Clinical Research Consortium

Application Evaluation

- Research Committee screens all applications
- Scientific Advisory Board evaluates applications (3 reviewers per application)
- Research Committee reviews evaluations and recommends approvals
- VF Board of Directors approves funding
- Application and reviewer "categories of expertise" help assignment*
- Assessment form with grading system and comments used to review**

Funded Studies by Disease

- Granulomatosis with polyangiitis: 11
- Churg Strauss syndrome: 2
- Giant cell arteritis: 3
- Other vasculitis diseases: 2
- Multiple diseases: 8 (All vasculitis diseases or ANCA-associated)

Funded Studies by Category of Investigation

- Clinical: 10
- Basic Science: 11
- Genetic: 5

Funded Studies Communicated

- Published in peer-reviewed literature: 24
- Presented at meetings: 12
- Poster presentations: 5
- Used to leverage larger studies: 2

Current Funding

- \$50,000 per study per year
- Duration
 - One year: 24
 - Two years: 2
 - Three years: 0

*Categories listed on page 4 **Assessment form on page 5

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Current Funding continued

- Maximum proposals to be funded per year: 3
- Research funds invested in separate account at Kansas City Greater Community Foundation

Accountability of Vasculitis Foundation

- Fair, impartial, appropriate and knowledgeable reviews
- Follow progress of studies and budgets
- Fund on time
- Long term follow up regarding publications, presentations, posters
- Periodic evaluation of program

Accountability of Investigators

- Perform approved study to highest standards
- Use funds as planned
- Furnish six month and final reports
- Disseminate results by publishing in peer-reviewed literature
- Provide VF with data regarding published, presented study
- Acknowledge VF as funding source

Issues

- Do we need to change our topics for research studies?
- Is there a better way to screen and evaluate the applications?
- What is a reasonable time table for the approval process?
- How can we better judge the results of the program? (publications, impact or significance, additional greater funding)
- How can we add reviewers, especially in basic sciences and genetics?

Recommendations for Vasculitis Foundation to Prioritize Studies

Following Dr. Gebhart's presentation, the group divided into smaller breakout groups to discuss research priorities to be recommended for the Vasculitis Foundation.

Reports were presented by each group and key areas worthy of investigation are summarized below.

1. Epidemiology: Spokesperson - Martin Cetron, MD Centers for Disease Control

- a. Incidence data on vasculitis disease prevalence, incidence, mortality and co-morbidities [e.g. end stage renal failure (ESRD), coronary artery disease (CAD), stroke, etc] and socioeconomic impact (disability etc) are not well known.

- b. Many reports extrapolate from what may be biased cohorts in unique locations. That data may not be generalizable. This can be improved upon by using large databases such as available from the National Hospital Discharge Surveys and similar surveys within the United States.
- c. These tools can also be applied to study distributions of cases by diagnoses to better determine case clusters that may shed light on environmental and socioeconomic factors related to disease etiology. The CDC uses these approaches and they can be modified for other than infectious diseases.
- d. The VA hospital systems also have large databases that can be used in a similar manner.

2. Genetics, etiology and pathogenesis:

Spokesperson - Stuart M. Levine, MD, FACP
The Johns Hopkins Vasculitis Center

Interests worthy of further study:

- a. Heterogeneity and determinants of disease phenotypes.
 - b. Determinants of vessel targeting. Why are some vessels/organs affected and others spared?
 - c. Pathogen discovery.
 - d. Role of aging (of immune system and affected tissues) in pathogenesis.
- ### **3. Therapeutics:** Spokesperson - Patrick H. Nachman, MD UNC Kidney Center
- a. Tailoring treatment to disease phenotype.
 - b. Strategies that promote prompt intervention to minimize damage from disease.
 - c. Treatment outcomes that measure effects on quality of life.
 - d. Linkage of small pilot studies to ongoing large funded studies.
 - e. Affects of patient education strategies on outcomes.
 - f. Analyses of patient coping strategies; which ones work and which do not?
 - g. Partnerships with Pharma - small pilot studies of new drugs for vasculitis.
 - h. Risk stratification based on race, socio-economic status, organ system involvement and outcomes.
- ### **4. Outcomes:** Spokesperson - Philip Seo, MD The Johns Hopkins Vasculitis Center
- a. Need for more precise measures of activity and severity in ANCA-associated vasculitis.
 - b. Need for disease activity tool for large vessel vasculitides.
 - c. Need for tools that local/non-expert physicians can use to assist in providing care for patients with vasculitis.
 - d. Use of biomarkers to help in assessing activity and outcomes.
 - e. Leveraging AARP to promote studies in Giant cell arteritis.

Fellowship Funding

Drs. Peter Merkel and Carol Langford shared their experiences in funding fellows through the Vasculitis Clinical Research Consortium and other independent methods.

The group recommended that the VF should try to raise funds to support an enduring fellowship for the following reasons:

1. There is a profound shortage of vasculitis specialists.
2. There is scant federal funding for vasculitis training.
3. Many physicians fail to recognize these diseases early and many patients suffer severe morbidity and mortality that may be avoided if a knowledgeable practitioner was embedded in every major city large academic medical center.
4. Such embedded specialists will heighten awareness of these diseases even in the minds of those who are trainees in all medical specialties, as well as provide a resource for training future vasculitis specialists.
5. There is limited research ongoing in vasculitis. A critical mass is required to make greater progress that will lead to cures.

What should a vasculitis fellowship look like?

1. The applicant should have stellar credentials based on prior training.
2. The mentors for the applicant should be established clinicians and investigators. They may be clinical, translational or basic science investigators. There should be more than one mentor in a program.
3. The program should have a curriculum as part of the application.
4. For non-PhD or PhD-equivalent applications, there should be a critical number of patients cared for with vasculitis and those numbers per medical center should be provided in the application.
5. The application should include a research project proposal.

What would a fellowship cost?

1. A two-year program that includes a graduate degree in clinical research (MPH or equivalent) in 2012 would require about \$60,000 for salary, \$20,000 for benefits and \$20,000/year for tuition in a graduate degree program.
2. A one-year fellowship to train an individual principally in vasculitis patient care would not include graduate school tuition and would be about \$80,000.
3. An endowment that would fund at least one fellow per year indefinitely would cost between \$2-2.5 million.

Conclusion

The one-day conference provided a thorough discussion of the research program's efforts to date. The recommendations of the attendees will guide the VF Board of Directors and staff in future decisions on funding research on vasculitis.



*This event was supported in part by a grant from
Human Genome Sciences.*

Scientific Advisory Board Categories

1. **Biochemistry** studies relating to the pathogenesis of vasculitis, including:
 - biochemical pathways involved in cellular metabolism
 - biomarkers of disease activity
 - signal transduction
2. **Cell Biology** studies in vasculitis
 - determinants of substrate vulnerability in vasculitis
 - dialog between substrate and immune reactive cells
3. **Cellular Immunology**
 - development, function, and interactions of immune cells and the vasculature
 - lymphocyte activation and inactivation
 - genetics of cellular immunology
4. **Clinical Immunology**
 - immunologic abnormalities in patients with vasculitis
 - genetic associations in vasculitis
 - animal models of vasculitis
 - immunopharmacology
5. **Inflammation**
 - endothelial and vascular smooth muscle cell biology and leukocyte adhesion
 - cytokines and vasculitis, including their production and actions
 - activation mechanisms of neutrophils, monocytes, lymphocytes, and other myeloid cells in inflammatory vascular diseases
6. **Clinical/Therapeutics/Outcomes**
 - clinical studies - interventional (pharmacologic, surgical, and rehabilitative)
 - clinical studies - noninterventional (genetic, biochemical, inflammatory)
 - epidemiology - clinical/community-based
 - health services research
 - quantitative research and quality of life research; other evaluation research (including educational programs)
7. **Molecular Immunology, Biology and Genetics**
 - clone and sequence genes relevant to vasculitis
 - gene regulation
 - molecular aspects of autoantibodies
 - structure and function relationships of molecules of the immune response (MHC antigens and immunoglobulins, T cell antigen receptors, etc.)
 - regulation of expression of genes encoding these molecules
 - signaling mechanisms of immune cell receptors
8. **Other Category** (please specify):

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VF Research Program Proposal **Assessment Form**

The purpose of the Vasculitis Foundation Research Program is to support studies that demonstrate excellence in science that advance us along the path for a cure and/or improve the quality of life for vasculitis patients.

This form is used in preparing critiques of research grant applications submitted to the Vasculitis Foundation Research Program as outlined in the Guidelines for Medical Advisory Reviewers. If added space is needed, please attach additional sheets.

Use a grading scale of 1 to 10 with 1 being highest and 10 being lowest for each of the areas as indicated and for the overall score. Half marks are permitted if necessary. Comments are very helpful.

Guidance for scoring follows:

- 1.0 ■ Exceptional
- 2.0 ■ Excellent, and is at the forefront internationally
- 3.0 ■ Good, bordering on excellent
- 4.0 ■ Good quality research which is internationally competitive
- 5.0 ■ Good quality research on the border between international and national competitiveness
- 6.0 ■ Good quality research which is at least nationally competitive
- 7.0 ■ Potentially useful, bordering on good quality research
- 8.0 ■ Research which may contain some good ideas but is unlikely to be productive or successful
- 9.0 ■ Potentially useful in some respects, bordering on unacceptable in others
- 10.0 ■ Serious scientific or ethical flaws

Areas for Review:

- 1. Significance: Rating
- 2. Preliminary Evidence: Rating
- 3. Experimental design, methods and analysis: Rating
- 4. Investigator(s): Rating
- 5. Institutional Support: Rating
- 6. Human Subjects: Rating
- 7. Animal Welfare: Rating
- 8. Budget: Rating

Overall Evaluation (Comments):

Overall Rating (Numerical):

Participant Bios

Martin Cetron, MD, is the Director for the Division of Global Migration and Quarantine (DGMQ) at the U.S. Centers for Disease Control and Prevention (CDC). Dr. Cetron has authored or co-authored more than 100 publications and received numerous awards for his work.

Dr. Cetron holds faculty appointments in the Division of Infectious Disease at the Emory University School of Medicine and Department of Epidemiology at Rollins School of Public Health. His primary research interests are international health and global migration with a focus on emerging infections, tropical diseases, and vaccine-preventable diseases in mobile populations.

Special interests: Infectious diseases, epidemiology, international health and immigration, large data base building and analyses, GCA/Takayasu's

Sharon A. Chung, MD, MAS, is an Assistant Professor of Medicine at the University of California, San Francisco (UCSF). She directs the Vasculitis Clinic and investigates the genetic epidemiology of systemic autoimmune diseases, including vasculitis.

Special interests: Genetics, epidemiology, disease susceptibility factors

Ivana DeDomenico, PhD, is an Assistant Professor of Internal Medicine at the University of Utah School of Medicine. Her primary appointment is in the Division of Hematology and Hematologic Malignancies. She also has an adjunct appointment with the Department of Biochemistry.

Dr. DeDomenico has a laboratory in the Division of Hematology to work on projects pertaining to regulation of iron homeostasis and inflammation and a laboratory in the Division of Rheumatology licensed by the CDC to work with *Burkholderia pseudomallei* strains.

Special interests: Pathogen discovery, large vessel vasculitis, cell biology

Peter C. Grayson, MD, MS., was recently appointed faculty in the Rheumatology Section at Boston University after completing a four-year fellowship that focused on vasculitis from both clinical and research perspectives. He is a leader of the U.S. contribution to an international effort to derive new classification criteria in vasculitis; holds a research grant for translational research from the American College of Rheumatology (ACR), and recently received a Distinguished Fellow award from the ACR. He has authored several publications about vasculitis and frequently presents work on behalf of the Vasculitis Clinical Research Consortium at international academic conferences. He enjoys the challenges of caring for patients with vasculitis in his clinical practice.

Special interests: Epidemiology, bio-informatics, gene expression and disease classification

Wolfgang L. Gross, MD, PhD, is a full Professor of Internal Medicine at the University of Lübeck/Germany and is the Director of the Dept. Rheumatology, University of Lübeck and Dept. of Rheumatology and Immunology in Bad Bramstedt. He serves as the Medical Director Klinikum in Bad Bramstedt. Prof. Gross' current research interests include the Clinical Research Group Deutsche Forschungsgemeinschaft. He is a speaker and co-investigator for Ectopic lymphatic structures in the granulomatosis of Wegener's.

Special interests: Granulomatosis with polyangiitis (Wegener's); Churg Strauss, Microscopic polyangiitis, ANCA

Gary S. Hoffman, MD, MS, is the Founder of the Cleveland Clinic Center for Vasculitis Care and Research, Founder and past Chairman of the International Network for the Study of Systemic Vasculitides (INSSYS), Chairman of the Department of Rheumatic and Immunologic Diseases at Cleveland Clinic and Professor of Medicine at Lerner College of Medicine. Prior to joining Cleveland Clinic, he was the Head of Vasculitis and Related Diseases at the National Institute of Allergy and Infectious

Diseases (NIAID), National Institutes of Health (NIH). Dr. Hoffman has led investigations of new therapies for the treatment of systemic vasculitides. His work includes the coordination of INSSYS-based multi-center studies of new treatments and diagnostic tools to assess vasculitis disease activity. His laboratory is studying factors that may be involved in determining organ vulnerability and selective targeting in vasculitis. He has received numerous awards for his contributions to vasculitis research.

Special interests: Granulomatosis with polyangiitis (Wegener's) (clinical); large vessel vasculitis (translational and clinical); Pathogen discovery

Cees G.M. Kallenberg, MD, was appointed as Associate Professor in Internal Medicine – Clinical Immunology in 1985 and as full Professor in 1993. He has chaired the Department of Rheumatology and Clinical Immunology at the Groningen University until May 1, 2011. His main research is on systemic autoimmune diseases, in particular ANCA-associated vasculitides, systemic lupus erythematosus, and Sjogren's Syndrome. He has written more than 500 articles on these subjects in international peer-reviewed journals. He is an invited speaker on his research topics at all major international meetings, and is an editorial board member of several journals in clinical immunology, nephrology and rheumatology.

Special interests: Infectious triggers of autoimmunity; S. Aureus nasal carriage and Granulomatosis with polyangiitis (Wegener's); Genetics and other disease susceptibility factors, including aging

Esther Kim, MD, is a cardiologist and vascular medicine specialist at the Cleveland Clinic. Her practice includes the care of patients with arterial diseases such as atherosclerosis, fibromuscular dysplasia and aneurysmal disease. She also works in collaboration with rheumatologists in the care of patients with vasculitis. One of her research interests currently is the imaging of carotid arteries using constant ultrasound to assess neovascularization, which can be seen in both vasculitis and in atherosclerotic disease.

Special interests: Cardiology, cardiovascular co-morbidities in vasculitis, ultra-sound diagnostics, large vessel vasculitis

Curry L. Koenig, MD, MS, is Director of the University of Utah Vasculitis Center. He received his internal medicine and rheumatology training at the University of Utah. He received his vasculitis training at the Cleveland Clinic with support from the Vasculitis Clinical Research Consortium (VCRC). He is a steering committee member of the VCRC and his research interests are giant cell arteritis and anemia of inflammation.

Special interests: Pathogen discovery, large vessel vasculitis, VA hospitals as a resource for Vasculitis Foundation in service and research

Carol A. Langford, MD, MHS, was a senior investigator at the National Institutes of Health from 1994 to 2004 where her research focused on vasculitic diseases. In 2004, Dr. Langford joined the Cleveland Clinic to become Director of the Center for Vasculitis Care and Research within the Department of Rheumatic and Immunologic Diseases. She is an Associate Professor of Medicine of the Cleveland Clinic Lerner College of Medicine of Case Western Reserve University and became Vice-Chair of Rheumatology for Research in 2007. In 2011, she was named the Harold C. Schott endowed Chair in Rheumatic and Immunologic Diseases.

Special interests: Clinical trials, large and small vessel diseases

Stuart M. Levine, MD, FACP, is Co-Director of The Johns Hopkins Vasculitis Center and Vice-Chairman of the Department of Medicine at Medstar Good Samaritan Hospital in Baltimore, Maryland. His research interests have included genomic biomarker development for the ANCA-associated vasculitides, and mechanism of neutrophil activation and granuloma formation in Granulomatosis with polyangiitis (Wegener's).

Peter A. Merkel, MD, MPH, is the Chief of Rheumatology at the University of Pennsylvania. Dr. Merkel is an internationally recognized expert in vasculitis and has studied these diseases for over 20 years. Dr. Merkel is the Principal Investigator of the NIH-Sponsored Vasculitis Clinical Research Consortium (VCRC), a founding member of the NIH Rare Diseases Clinical Research Network (RDCRN). The VCRC is the leading research infrastructure for vasculitis clinical investigation in North America with additional projects worldwide. He is Co-Principal Investigator of the PEXIVAS (plasma exchange in vasculitis) trial, the AGATA trial (abatacept for large vessel vasculitis), and upcoming RITAZAREM trial (rituximab vs. azathioprine for remission-maintenance in vasculitis). Dr. Merkel's research focuses on clinical trial design and conduct, outcome measure development, clinical epidemiology, and biomarker discovery utilizing a variety of translational research techniques. He is an author on over 150 scientific publications.

Special interests: Outcomes, clinical trials, surrogate markers, partnerships in research to build synergies

Patrick H. Nachman, MD, is Associate Professor of Medicine at the University of North Carolina Kidney Center. Dr. Nachman specializes in internal medicine and nephrology in Chapel Hill, North Carolina.

Special interests: Genetics, antigen expression, animal models, immune regulation, epidemiology

Phil Seo, MD, is Co-Director of The Johns Hopkins Vasculitis Center. He is an Associate Professor in the Division of Rheumatology at Columbia University College of Physicians and Surgeons. He has worked at Johns Hopkins in several capacities, including as a hospitalist at Johns Hopkins Bayview Medical Center, and as an Assistant Chief of Service of the Department of Medicine at The Johns Hopkins Hospital, before joining the Division of Rheumatology. His research interests include the use of 2-dimensional electrophoresis and 2-dimensional liquid chromatography to identify novel biomarkers of activity in Granulomatosis with polyangiitis (Wegener's), and the development of a new index of damage for patients with ANCA-associated vasculitis.

Special interests: Outcomes; impact of socioeconomic factors on outcomes

Antoine Sreih, MD, is Director of the Rush Vasculitis Clinic. He is an Assistant Professor in the Department of Internal Medicine at Rush Medical College and serves as an attending physician at Rush University Medical Center.

Dr. Sreih is a member of the American College of Rheumatology (ACR) and the American College of Physicians. His clinical and research interests include vasculitis and genetics and autoimmunity. He has received research support from the ACR Research & Education Foundation. His work has been published in journals such as Arthritis and Rheumatism, the Journal of Autoimmunity, and Pharmacotherapy.

Special interests: Disease phenotypes in minority populations vs. others; therapeutics

Kenneth J. Warrington, MD, is Consultant Rheumatologist and Associate Professor of Medicine in the College of Medicine at Mayo Clinic, Rochester. Dr. Warrington's research and clinical practice interests are in the field of vasculitis. He is conducting clinical and translational research on large vessel vasculitis, particularly Giant cell arteritis.

Special interests: Large vessel vasculitis, outcomes and co-morbidities

Yusuf Yazici, MD, is an Assistant Professor of Medicine at the New York University School of Medicine. Dr. Yazici is Director of the Seligman Center for Advanced Therapeutics at the NYU Hospital for Joint Diseases and Director of the Behcet's Syndrome Evaluation, Treatment and Research Center at NYU Hospital for Joint Diseases.

Special interests: Behcet's, clinical trials, registries

Vasculitis Foundation Participating Board of Directors

George Casey, Jr., is the Chief Technology Officer and Senior Vice President of Product Management for Junction Solutions, an Enterprise Software and Technology Services provider. George was diagnosed with Granulomatosis with polyangiitis (Wegener's) in 2006 at age 32 after almost a year of near debilitating pain and fatigue, and within a month of becoming a father. George was recently named to the Vasculitis Foundation Board of Directors and was also elected to the role of Vice President of Resource Development.

Grace Eisen, RN, MSN, has worked as a staff nurse and nurse educator, currently at MidMichigan Community College. Grace was diagnosed with Granulomatosis with polyangiitis (Wegener's) in 2004. She has been actively involved in the Vasculitis Foundation as a chapter leader, Education and Awareness Council member, and now as President-Elect of the Board of Directors. Grace's goal is to support and educate vasculitis patients and their families so that they may acquire improved quality of life.

Chris Cox, MD, joined the Vasculitis Foundation Board of Directors in 2011 and is now the Chair of the Research Committee. Diagnosed in 2001 with atypical Takayasu's arteritis, she understands the difficulty of diagnosis and effective treatment, as well as resulting complications. Prior to her diagnosis, she practiced neurosurgery affiliated with the University of Minnesota with a subspecialty in epilepsy surgery. She lives with her husband and two children in Minneapolis.

Don E. Gebhart, MD, FACS, is the retired Clinical Professor of Otolaryngology at The Ohio State University. Dr. Gebhart received his doctor of medicine degree from the University of Cincinnati. Dr. Gebhart was diagnosed with Granulomatosis with polyangiitis (Wegener's) in 1995. He served on the Vasculitis Foundation Board of Directors from 2002-2011; and was the Chair of the Research Committee from 2002-2011.

Steve Madincea is the founder and group managing director of PRISM (Public Relations & International Sports Marketing), a recognized global leader in the world of sports sponsorship, marketing and public relations. Steve and his wife, Jackie, started PRISM in 1993 and are the proud parents of three wonderful children. Steve was diagnosed with Granulomatosis with polyangiitis (Wegener's) in 2004 and joined the Vasculitis Foundation Board of Directors that same year. He has chaired the Finance, Symposium and Marketing Committees.

Bob Sahs retired from his position as a sales and marketing representative in the textile industry, and as former owner of "All About Golf," a golf accessory distributorship in 1999 when his wife Elaine was diagnosed with Granulomatosis with polyangiitis (Wegener's). In addition to being an avid golfer and caregiver to Elaine, Bob spends his retirement years doing volunteer work for the Veterans of Foreign Wars, Kiwanis International, and the Vasculitis Foundation. Bob is an active member of the Vasculitis Foundation Greater NY Chapter, chapter leader for The Villages (Florida) Chapter, and is currently the President of the Board of Directors, which he joined in 2006. Because Elaine's father also suffered from Granulomatosis with polyangiitis (Wegener's), Bob believes that vasculitis is not so rare, but because vasculitis is difficult to diagnose, it is rarely diagnosed.

Jason Wadler is Executive Vice President/Strategy Officer for Leapfrog Online. He has over 20 years of integrated marketing and media experience with leading consumer and business-to-business brands. Diagnosed with Granulomatosis with polyangiitis (Wegener's) in 2011, Jason joined the Vasculitis Foundation Board of Directors the same year. He now serves as the Chair of the Marketing Committee. He also sits on the Boards of Chicago-based companies: MightyNest, CellarAngels, and Tempesta Media. He lives in Glencoe, Illinois, with his wife and two children.

Joyce A. Kullman, Executive Director, Vasculitis Foundation

Jordan Crane, Director of Development, Vasculitis Foundation

Research Studies Funded by Vasculitis Foundation Grants | 2002 - 2012

- Short-Term Cyclophosphamide Therapy in a Cohort of Over 200 Patients**
*Gary Hoffman, MD, MS and Alexandra Villa-Forte, MD, MPH
The Cleveland Clinic Foundation*
- Host-Microbial Interactions in Wegener's Granulomatosis: the Role Of ANCA and S. Aureus Persistence**
Robert Inman, MD, University of Toronto
- The Role of Shear Stress in Neutrophil Proteinase-3 Expression and its Importance in Vascular Injury Sites in Wegener's Granulomatosis**
Deborah Stearns-Kurosawa, Ph.D., Oklahoma Medical Research Foundation
- Analysis of Nkg2d Expression on Cd28- T-Cells and Non-Classical Mhc-Class I Antigen Expression on Antigen-Presenting Cells as Clues to an Antigen-Driven Process and New Targets of Treatment in Wegener's Granulomatosis**
*Wolfgang L. Gross, MD, Ph.D., and Peter Lamprecht, MD
University Hospital of Schleswig-Holstein, Campus Luebeck, and Rheumaklinik Bad Bramstedt*
- Identification of Novel Wegener's Granulomatosis Susceptibility Genes**
Katherine Siminovitch, MD, FRCP(C), ABIM, Mount Sinai Hospital
- Wegener's Granulomatosis and Microscopic Polyarteritis Case Control Study in Western Montana**
Andrew Zeft, MD, Division of Immunology and Rheumatology, Department of Pediatrics, University of Utah
- Development of a Measure to Assess Patients' Adherence to Vasculitis Treatment Regimens**
Dr. Robert DeVellis, Ph.D., University of North Carolina at Chapel Hill
- Environmental Factors in the Pathogenesis of Wegener's Granulomatosis**
Daniel A. Albert, MD, University of Pennsylvania School of Medicine
- Localized Wegener's Granulomatosis: Epidemiological, Clinical and Histopathological Characteristics**
*Peer Malte Aries, MD, and Wolfgang L. Gross, MD, Ph.D.
University Hospital of Schleswig-Holstein*
- A Pilot Project Towards Establishment of a US/Canadian Diagnostic Registry of Children with Wegener's Granulomatosis and Related Vasculitides**
David A. Cabral, MBBS, FRCP(C), BC Children's Hospital
- Renal Transplantation in Wegener's Granulomatosis: Mortality, Allograft Outcomes and Incidence of Malignancies from The United Network for Organ Sharing Database 1988-2005**
Nadine Tanenbaum, MD, Duke University
- Identification and Characterization of Immunodominant, Conformational Epitopes of Antineutrophil Cytoplasmic Antibodies**
*Antje Mueller, Ph.D., Elena Csernok, MD, Peter Lamprecht, MD
University of Rheumatology, University Hospital Schleswig-Holstein, Campus, Luebeck, Germany*
- Gene Expression Profile of Temporal Arteries of Giant Cell Arteritis**
Rula Hajj-Ali, MD, Cleveland Clinic
- ANCA Vasculitis: Autoimmune B Cell Dysregulation and Its Clinical Impact**
Patrick Nachman, MD, University of North Carolina Kidney Center
- Expression and Activation of p38MAPK Isoforms in ANCA-Associated Renal Vasculitis**
Jochen Zwerina, MD, Department of Internal Medicine 3 and Institute for Clinical Immunology, University of Erlangen, Germany
- Vasculitic T Cells in Giant Cell Arteritis**
C.M. Weyand, MD, Ph.D., Emory University, Atlanta, Georgia
- An Investigation of the Role of the Innate Immune Response in Kawasaki Disease**
Neil Bowles, Ph.D., Eccles Institute of Human Genetics
- Investigating the Role of the Novel Th 17 Cells in the Pathogenesis of ANCA-Associated Vasculitis and Their Potential for Immunomodulation**
Alan Salama, MA, MBBS, Ph.D., FRCP, Renal Section, Division of Medicine, Imperial College London, England
- PARP-1 in CSS-Associated IL-10 Promoter Polymorphisms**
Jianguo Liu, MD, Ph.D., Division of Immunobiology, Department of Internal Medicine, Saint Louis University School of Medicine
- Reproductive Health in Young Men and Women with Vasculitis**
*Megan Clowse, MD, MPH, Rheumatology and Immunology
Duke University*
- Classification and Diagnostic Criteria in Primary Systemic Vasculitis**
Raashid Ahmed Luqmani, DM, FRCP(E), Nuffield Department of Orthopaedics Rheumatology & Musculoskeletal Science, Oxford, United Kingdom
- Identification of Susceptibility Genes in Takayasu's Arteritis**
Amr H. Sawalha, MD, Oklahoma City, OK
- Defining an Animal Model for the Study of Wegener's Granulomatosis**
Felipe Andrade, MD, Ph.D., The Johns Hopkins University, Baltimore
- Exome Sequencing in Granulomatosis with Polyangiitis**
Sharon A. Chung, MD, MAS, Division of Rheumatology, University of California, San Francisco
- Investigating the Molecular Mechanism for IL-25-driven Act1-dependent Eosinophilic Vasculitis**
Shadi Swaidani, Ph.D., Cleveland Clinic Lerner Research Institute
- Small Molecule Therapeutics in Giant Cell Arteritis**
C.M. Weyand, MD, Ph.D., Emory University, Atlanta, Georgia