

Special points of interest:

- **10TH ANNIVERSARY ISSUE—Center Pull-out**
Past Meetings
Past Awardees
Past Presidents
- **IVBM Program at a Glance—Page 5**



MESSAGE FROM THE PRESIDENT



Linda L. Demer, M.D., Ph.D., NAVBO President, 2003-2004

I am looking forward to seeing NAVBO members at the **International Vascular Biology Meeting in Toronto, June 1-5**. This meeting, headed by Dr. Avrum Gotlieb (University of Toronto), promises to be outstanding. With the rapid scientific developments in our field, it is difficult to keep up solely by reading journals. Science turns over more quickly than we can turn pages, so this meeting is a must. It will bring you up-to-date in many areas of your interest. Program and registration information can be found at - www.ivbm2004.ca.

As my year as President of NAVBO comes to completion, it is a pleasure to look back at the accomplishments of the past year, and the progress toward new goals for next year. We have been active in several areas:

The **Workshop on Developmental Vascular Biology** took place at the Asilomar Confer-

Linda L. Demer

ence Center near Monterey in February. Organized by Council member Luisa Iruela-Arispe (UCLA) and Brant M. Weinstein (NIH), and sponsored in part by a grant from the NICHD/NIH, it was enormously successful. The attendance exceeded expectations, and the participants were delighted with the quality of speakers and discussions.

The **Blood Vessel Club**, traditionally presented for more than 25 years at the Experimental Biology Meetings (formerly the FASEB Meetings), was organized by President-elect William A. Muller (Cornell University, Weill Medical College) and focused on Visualizing Vascular Pathophysiology *in Vivo*. The session was very successful, at times filling the room of 250 seats.

The **Evolving Paradigm for CAD**, a highly successful half-day symposium, hosted by Council member John Cooke (Stanford University), was co-sponsored by NAVBO and Stanford. It featured speakers Drs. Peter Libby (Harvard Medical School), Valentin Fuster (Mount Sinai Medical Center, NY) and Christie Ballantyne (Baylor College of Medicine) as well as Dr. Cooke. The symposium met with such success that

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NAVBO History - Center Pull-out			

Dr. Cooke will be presenting a similar program in September. Visit our web site for further details.

Following the success of the Developmental Biology Workshop, NAVBO Council Members are planning to embark on a series of **focused workshops** for the future. We are planning to hold Developmental Vascular Biology workshops every other year, and a different theme in alternate years. In 2005, we plan to host another workshop on **Cell Signaling**, organized by Michael Reidy (University of Washington). A future meeting on Vascular Bioengineering is anticipated. If you have any suggestions for topics, participants, or volunteer opportunities, please contact us. These small meetings benefit young investigators and newcomers with opportunities to meet and interact with investigators in your specific field.

The Program Committee for **Vascular Biology 2005** (Chicago Hyatt Regency Hotel, June 17-19) is headed by Martha Cathcart (Cleveland Clinic Foundation). Committee members are Drs. Myron Cybulsky, Zorina Galis, Mary Gerritsen, Joseph Miano, Michael Reidy and Michael Simons, providing representation across the range of our membership's interests. This annual meeting will be held in conjunction with the Annual Meeting of the Society for Vascular Medicine and Biology, which represents specialists in vascular medicine. In the past, NAVBO's annual Vascular Biology meeting had been held in conjunction with Experimental Biology or the American Heart Association's ATVB meeting. In addition to the quality sessions that keep you abreast of the latest and hottest topics in vascular biol-

ogy, this new venue will provide a highly relevant clinical link that should benefit investigators interested in translational research as well. Due to sponsorship at the meeting, this cooperative arrangement may also allow reduced registration fees for NAVBO members.

Recruiting new members is an important priority, to assure input and involvement of the entire vascular biology community. We are asking that all members support their trainees or staff as members and encourage colleagues to join. NAVBO membership assures that investigators are in the know. It helps you stay in touch by providing monthly email updates on new and established meetings, abstract deadlines, and leadership opportunities.

I am pleased to welcome the new NAVBO leadership for next year, including our incoming President, Dr. William A. Muller. The nomination committee has put together a superb slate of nominees for the following year. Regular members will receive the ballot soon, and I urge you to vote.

We have a new editor for the NAVBO newsletter, Dr. William Huckle, Associate Professor in the Department of Biomedical Sciences and Pathobiology at Virginia Tech.

I would like to give special thanks to Bernadette Englert, NAVBO Administrator, who superbly manages the often complex issues of the organization. We can be grateful that she is devoted to our organization's success. I look forward to continuing NAVBO work next year under the leadership of Bill Muller.

MEET THE NEW EDITOR

William R. Huckle

This issue of the NAVBO Newsletter marks my first as Editor. Although I have worked in fields related to vascular biology for over 15 years and have had the pleasure of associating professionally with a number of NAVBO members, I have become active in the organization only recently. I welcome the opportunity to serve NAVBO in this new capacity.

I think we would all agree that the semi-annual compendium of upcoming meetings, classified ads and technical tips all are useful features of the newsletter. In addition, the newsletter has generated ideas for forms of information exchange beyond the printed page. For example, Tim Peterson and Bernadette Englert are mulling the creation of a web- or listserv-based forum for protocol sharing and technical problem solving. Such an effort could, in time, provide the basis for a comprehensive vascular biology methods manual.

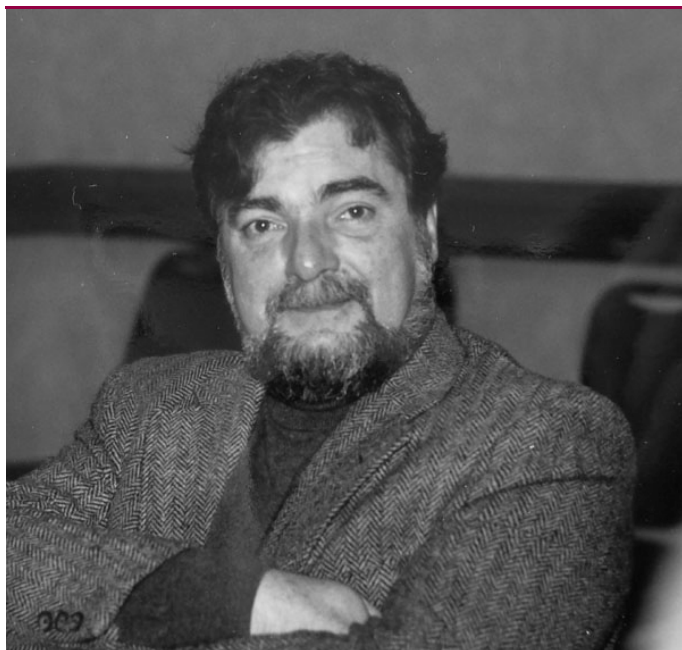
My hope is that this publication can become an even greater resource for useful information not found in the 3 or 4 other society newsletters that most of us also receive. Stay tuned for items on "translational research," accounts of how results of basic investigations are making their way toward clinical utility, and on novel opportunities for collaboration among scientists from seemingly distantly related disciplines. I invite you to share with me any ideas you may have for new or improved features of the newsletter.



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THOMAS MACIAG – A EULOGY

Timothy Hla



Thomas Maciag, Ph.D. – 1946-2004

Dr. Thomas Maciag, 57, Director of the Center for Molecular Medicine at Maine Medical Center Research Institute in Portland, Maine, died suddenly on March 8th, 2004. Tom is survived by his wife, Lorrie Maciag, and his son Andrei. Friends and colleagues in the vascular biology community were shocked and greatly saddened.

Tom Maciag contributed significantly to many fields of science in his lifetime. Salient contributions include the establishment of methods for long-term culture of human endothelial cells. He applied this technology to gain important insights in endothelial cell morphogenesis, proliferation and senescence. This simple method, which allowed reproducible culture of large numbers of human endothelial cells, made possible numerous studies in vascular biology using molecular and biochemical approaches. It remains the method of choice today for endothelial cell culture. He and his colleagues also discovered fibroblast growth factor (FGF) as an important endothelial cell mitogen, and forged ahead to purify it, clone it, characterize its receptors and signaling pathways. In the days when the angiogenesis field lacked molecules, Tom's lab was among the first to fill the void. He took his findings *in vivo* and demonstrated that angiogenic factors induced site-directed neo-vessel formation, thereby furthering the concept that soluble angiogenic factors are involved in

normal and pathologic angiogenic processes. He also showed that aberrant expression and/or secretion of angiogenic factors (the so-called angiogenic switch) contributes to inflammatory disease and neoplasia. These pioneering efforts ultimately led to the successful launch of anti-angiogenic drugs of today.

Tom's work also led to the demonstration that cyclooxygenase is an inducible enzyme. Tom's contribution to the field of endothelial cell morphogenesis was the cloning of regulatory molecules, such as sphingosine 1-phosphate receptor-1 (EDG-1) and the *Jagged* gene. His latest quest, doggedly pursued in the past 10 years or so, was the elucidation of the non-classical secretory pathway for signal-less growth factors and cytokines, such as FGF-1 and IL-1 α . He was never modest in his pursuit of excellence and pushed technology to new heights so that the truth about nature could emerge. Furthermore, he was not shy about pursuing concepts that were not in the mainstream. Many of us who knew Tom realize that the full impact of his contributions will not be felt for some time.

Tom Maciag busied himself throughout his lifetime as a quintessential builder of institutions and infrastructure. He developed an academically-oriented department of Cell Biology at the Revlon Health Sciences/Rorer Biotech in the mid-1980s. In the late '80s and a good part of '90s, he established a world-class center of excellence in Vascular Biology at the Jerome Holland Laboratory at the American Red Cross research labs in Rockville, MD. He then moved to Maine Medical Center in the late 1990s and established the Research Institute there as the Director of Center for Molecular Medicine. At every stop in his career, Tom challenged the "normal paradigm" and moved the people and the place to a higher level of performance and excellence.

I was one of the many young scientists who were impressed by Tom's vision while going through his lab as a trainee. The years spent under his tutelage were simply magical for many of us. He provided an environment wherein the passion for science, excellence, and innovation ruled the day. His unlimited enthusiasm and intensity was infectious and provided the fuel for the many discoveries in his lab. Despite the fact that the angiogenesis and growth factor fields were rife

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TAKING CARE OF BUSINESS

Bernadette M. Englert

Ten years ago I was planning my wedding. But more importantly, in March of 1994, certain vascular biologists were creating a new professional society. In April, that society held its first annual meeting in Anaheim, California; bylaws were ratified and elections held. Now, NAVBO is celebrating ten years of networking, educating and building a strong forum for communication amongst vascular biologists working in diverse fields.

For a short stroll down memory lane, see the pull-out center section of this newsletter, recalling locales of our meetings, past awardees and past presidents. It's suitable for sharing with colleagues and includes a membership application. In addition, this issue includes all the names of those members who joined NAVBO in 1994 and remain active members of the society. Congratulations and thank you!

*Happy
10th Anniversary
NAVBO!*

In this year alone we have so much to offer our members. The Developmental Vascular Biology Workshop was a huge success, fulfilling what most longtime members believe should be NAVBO's focus – providing venues where experts in specific subdisciplines of vascular biology can get together with colleagues, especially students and fellows, and share ideas. Soon after that, in April, our Educational Outreach Program co-sponsored a very successful symposium for clinicians on statins and cardiovascular biology. Also, the long awaited thirteenth International Vascular Biology Meeting will be held in Toronto, June 1-5. In July, NAVBO is proud to co-sponsor, along with the Universities of Washington, British Columbia, California/Los Angeles, and Dartmouth College, a summer course for students and post-docs interested in cardiovascular biology and disease entitled Vasculata. In September, NAVBO, in conjunction with Stanford University, will present another symposium as part of our educational outreach program. Further information about these meetings can be found in this newsletter.

Now we look forward to the future. Plans for the next annual meeting, Vascular Biology 2005, are well underway as well as plans for next year's workshop on Cell Signaling. In addition, we plan to continue this work-

shop series and will hold another Workshop on Developmental Vascular Biology in 2006, and in 2007, a Workshop on Vascular Matrix Biology and Bioengineering. We also hope to extend our outreach programming. Please feel free to contact the office (or a member of Council) and let us know what directions you believe NAVBO should take in the future.

I would like to take this opportunity to thank everyone who has taken a special interest and shown an outstanding commitment to NAVBO – of course Michael Gimbrone and Steve Schwartz must top that list as co-founders of NAVBO, its first two presidents and continuing supporters. Thanks also to: Mary Gerritsen, NAVBO's first Newsletter Editor, an original member of Council, our seventh president, and member of several committees over the years, for her continued support and expertise; Luisa Iruela-Arispe and John Cooke, current Councilors who have taken those extra steps that transform a good idea into an actuality. Committee Chairs, both current and past – especially Program Chairs who have helped to forge NAVBO's reputation for scientific excellence; the Secretary-Treasurers, Elizabeth Nabel, Mary Gerritsen, Linda Demer and our current Secretary-Treasurer, Michael Simons, for sharing budgetary concerns with me and often doing what they can to raise non-dues revenue for NAVBO and its programs. And of course, to all the Past Presidents of NAVBO, each one has been a pleasure to work with and has made their own unique contribution to the society – Michael Gimbrone, Stephen Schwartz, Elizabeth Nabel, Jordan Pober, Gary Owens, Bradford Berk, Mary Gerritsen, Alexander Clowes, Paul DiCorleto, and Linda Demer.

A special thank you and warm welcome to our new Newsletter Editor, William Huckle. His enthusiasm for this task is inspiring and I look forward to working with him on this and perhaps other related projects as well.

Finally, I would like to thank the members who believe in NAVBO and participate in our activities — after all, everything I do, I do for you. Please let me know how the NAVBO Council, Committees and staff can better serve you.

Here's to another ten years - Cheers!

International Vascular Biology Meeting

June 1-5, 2004 - Toronto, Canada



Tuesday, June 1

Opening Ceremony

6:00 - 6:45 pm

Keynote Speaker -

Signaling Pathways in Vascular Development

Janet Rossant, University of Toronto, Samuel Lunenfeld Research Institute

6:45 - 7:05 pm

Scientific and Therapeutic Challenges in Vascular Biology

Elizabeth Nabel, NHLBI/NIH

7:05 - 7:30 pm

ICRH and Canadian Cardiovascular Science

Bruce McManus, Canadian Institutes of Health and Research

7:30 - 9:00 pm

Opening Reception

Wednesday, June 2

8:00 - 10:00 am

Plenary: **Vascular Development**

10:30 am - 12:30 pm—Workshops

- Arterio-venous and lymphatic differentiation
- Novel signaling pathways in the vasculature
- Lipoprotein receptors and biology in the vascular wall

2:00 - 4:00 pm—Workshops

- Vascular cell junctions
- Genetic, genomic and proteomic approaches to vascular disease
- Molecular modulation of integrin function

4:00 - 7:00 pm

Poster Session 1

Thursday, June 3

8:00 - 10:00 am

Plenary:

Mechanisms and Control of Cell Migration

10:30 am - 12:30 pm—Workshops

- Cell-matrix interactions
- Leukocyte-endothelial cell interactions in inflammation
- Cellular responses to vascular injury

2:00 - 4:00 pm—Workshops

- Characterization and targeting of tumor vasculature
- Inflammatory mechanisms in vascular diseases
- Regulation of transcription in vascular cells

4:00 - 7:00 pm

Poster Session 2

Friday, June 4

7:30 - 8:00 am

NAVBO Membership Business Meeting

8:00 - 9:00 am

Benditt Award - Dr. Peter Carmeliet

Lecture: **Functional Angiogenomics in Mice, Zebrafish and Humans**

9:00 - 10:00 am

Plenary:

Vascular Stem Cell/Cell Transdifferentiation

2:00 - 4:00 pm—Workshops

- Regenerative medicine/morphogenesis
- Proteases in vascular biology and disease
- Smooth muscle cell phenotype and heterogeneity

4:00 - 7:00 pm

Poster Session 3

7:30 - 11:00 pm

Gala Banquet

Saturday, June 5

8:00 - 10:00 am

Plenary: **Dynamic Subcellular Imaging**

10:30 am - 12:30 pm—Workshops

- Vascular tone
- Mechanobiology of the vascular system
- Vascular imaging

2:00 - 4:00 pm—Workshops

- NOS biology in vascular disorders
- Vascular wall calcification
- Remodeling of blood vessels

4:00 - 4:25

Meeting Summary

Stephen M. Schwartz, University of Washington

4:25 - 4:30 pm

Young Investigator Awards Presentation

NAVBO DEVELOPMENTAL VASCULAR BIOLOGY WORKSHOP A SUCCESS

William R. Huckle, Editor

During the first week of February 2004, some 160 devotees of the study of vascular development gathered at the Asilomar Conference Center in Pacific Grove, California, for the NAVBO Developmental Vascular Biology Workshop. Many leading investigators in developmental vascular biology were present, and all in attendance were treated to a comprehensive, 4-day survey of current research in the field. Oral sessions were organized around topics of emerging vascular lineages, evolutionary origins of the vasculature, cell-tissue interactions, vascular signaling and differentiation, morphogenesis, vascular network formation and anatomic integration. Afternoon poster sessions addressed parallel subjects. (The meeting program can be viewed on the NAVBO web site: <http://www.navbo.org/dvbWorkshop.htm>, and Workshop abstracts have been published in *Endothelium* [vol. 10, no. 6, 2003]).

Check the NAVBO web site for updates concerning the Workshop Series

The biology of the lymphatic system was featured prominently at the Workshop, culminating in the keynote lecture by Dr. Kari Alitalo from the University of Helsinki. Dr. Alitalo described lymphangiogenesis in the context of embryonic development, linking changes in expression of growth factor receptors (e.g., Flt4/VEGFR3) with the

appearance of vascular smooth muscle-endothelial interactions and the emergence of specialized lymphatic endothelial cells. He articulated major questions that face investigators of lymphatic vessel development: can one define, using current “-omic” approaches, the molecular phenotypic differences between blood endothelial cells and lymphatic endothelial cells? What is the potential for trans-differentiation, promoted by lineage-specific transcription factors, between these two endothelial cell types? With respect to signaling in the lymphatic endothelial cells, Dr. Alitalo’s lab has explored the role of the VEGF-C/VEGFR3 system in regulating lymphatic permeability and pancreatic tumor metastasis.

Other strong thematic elements of the Workshop included:

- Gene dosage effects for vascular growth factors and their receptors
- Guiding interactions among the developing neural, skeletal and vascular systems

- Signaling among endothelial cells, smooth muscle cells and cardiomyocytes
- Roles of novel transcription factors
- Mechanisms of vascular tubulogenesis, remodeling and capillary regression
- Computational biology and mathematical modeling

The power of current experimental models and investigative tools, such as gene manipulation in zebrafish, the use of differentiating embryonic stem cells and time-lapse video microscopy, was readily apparent.

A stated goal of the Workshop was to bring investigators from the vanguard of vascular development research together with relative newcomers to the field, in a setting that would promote intellectual exchange. The Asilomar venue provided a casual and intimate atmosphere that was ideal for productive interaction among meeting participants at meals or between sessions. As well as providing a scholarly boost to workshop attendees, the meeting also proved to be a boon for member recruitment, as 30 registrants became new NAVBO members. In addition, the educational mission of NAVBO was well served, through the presence of at least 67 registrants who were graduate students or post-docs. Trainees had the opportunity to enter their poster presentations into friendly competition with their fellows—congratulations to poster award winners Nick Kappas from Victoria Bautch’s lab at University of North Carolina-Chapel Hill and Sven Nelander from Göteborg University.



From left: Awardee, Nicholas C. Kappas, UNC-Chapel Hill; Workshop co-organizer, Brant Weinstein, NIH; Awardee Sven Nelander of Göteborg University; and co-organizer, Luisa Iruela-Arispe of UCLA.

We owe sincere thanks to the Workshop organizers, Luisa Iruela-Arispe (UCLA) and Brant Weinstein (NIH), as well as NAVBO administrator Bernadette Englert for arranging and conducting this very successful meeting. Appreciation is extended to poster presenters and to the remarkable slate of speakers for sharing their exciting findings. Thanks also are due to Workshop sponsors NIH/NICHHD, Applied Biophysics, Bio-Rad Laboratories, Eyetech Pharmaceuticals, Genentech, Novartis, VEC Technologies and VisualSonics. Plans are in the works to hold another Developmental Vas-

lar Biology Workshop in February 2006. In addition, stay tuned for news on other upcoming NAVBO Workshops, on the topics of Cell Signaling (2005) and Vascular Matrix Biology and Bioengineering (2007). Please plan to attend and encourage your colleagues, trainees and staff to take advantage of these outstanding learning opportunities.

TECHNICIAN'S CORNER—THE FACTS ON MACS

Timothy Peterson

Over the past few years the use of magnetic activated cell sorting (MACS) has enabled researchers to isolate specific cell types with relatively high purity from peripheral blood and bone marrow. The concept is simple. Antibodies specific for cell surface antigens are linked to magnetic beads and incubated with a mixed cell population. The cell suspension is then passed through a magnetic column that selectively retains the cells that have bound the antibody/bead complex. The column is then removed from the magnetic field, and the cells of interest are eluted and analyzed by FACS for purity.

Recently, I have used this approach for the isolation of aortic endothelial cells from transgenic mice and was able to achieve reasonable success using the following protocol:

- Aortas from 2 mice were cleaned, cut longitudinally and placed in serum-free DMEM containing 0.1% collagenase at 37°C for 20 minutes. Single cells were dispersed from the tissue by scraping or pipetting up and down several times followed by a brief centrifugation to pellet tissue debris.
- The cell suspension was incubated for 20 minutes with a rat anti-mouse antibody against PECAM-1 (BD Pharmingen) conjugated to rat IgG-coated magnetic beads (Miltenyi Biotec), and then loaded onto a magnetic column and rinsed several times with DMEM. The bound endothelial cells were eluted with endothelial growth media and plated onto a chamber slide for analysis of endothelial markers.

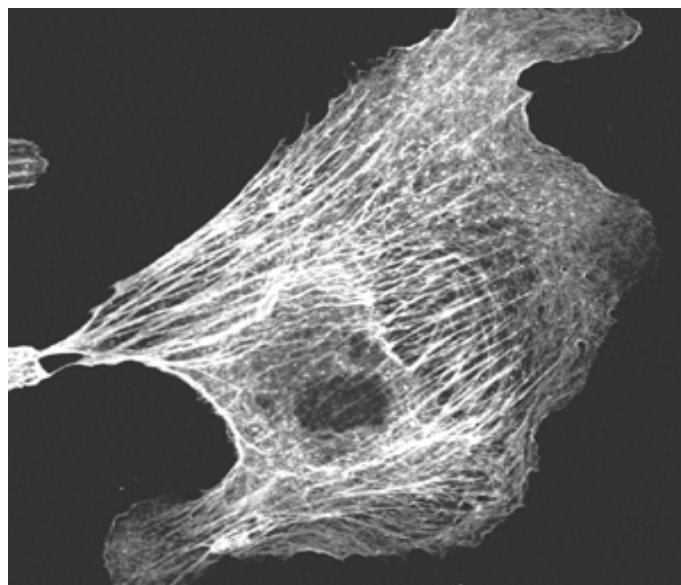
While the initial yields were sparse, the isolation was sufficient to obtain endothelial colonies suitable for confocal microscopy. Pooled aortas from up to ten mice may be necessary to obtain enough cells for Western

blot analysis. If the initial isolation gives a mixed cell population, the cells can be trypsinized and re-isolated for greater purity. When this procedure was used on rabbit aortas, the yield was significantly higher, resulting in a confluent T-75 flask in 10 days.

If you have any additional tips or are interested in more details regarding this protocol, email us at techcorner@navbo.org. General information on this technique can be obtained from Miltenyi Biotec (www.macs-sorting.com/), Dynal Biotech (www.dynal.net/) and Qiagen, Inc. (www1.qiagen.com/).

**Technician's
Corner -**

send your comments to
TechCorner@navbo.org



NAVBO FOUNDING MEMBERS - JOINED IN 1994 AND STILL ACTIVE!!!

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(LISTED IN CHRONOLOGICAL ORDER BY DATE JOINED - MARCH 12 THROUGH DECEMBER 27, 1994)

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Thierry Pedrazzini Univ of Lausanne Med School	Peter Libby Brigham & Women's Hosp	Kenneth G. Mann University of Vermont
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Linda M. McManus
Univ of Texas Hlth Sci Ctr

Robert Simari
Mayo Clinic

NAVBO Elections for 2004-2005

Attention Regular Members of NAVBO -

The following members have agreed to run for President-Elect:

Cecilia M. Giachelli, Ph.D.
University of Washington Medical Center
Dept of Bioengineering

Michael Simons, M.D.
Dartmouth-Hitchcock Medical Center
Section of Cardiology

The following members have agreed to run for Councilor:

Karen K. Hirschi, Ph.D.
Baylor College of Medicine
Children's Nutrition Research Center

Joseph M. Miano, Ph.D.
University of Rochester
Center for Cardiovascular Research

Timothy Hla, Ph.D.
University of Connecticut School of Medicine
Dept of Physiology

Wolfrum Ruf, M.D.
The Scripps Research Institute
Dept of Immunology

Robert P. Mecham, Ph.D.
Washington University Medical School
Dept of Cell Biology and Physiology

Ballots will be sent via email. Biographies and pictures of candidates will be available on the web site. If you would like a paper ballot sent to you please print your name below and fax to me at (301) 634-7990 or email your request to bernadette@navbo.org

Please send me a paper ballot - _____
Print name of Regular Member

Fax to: _____ Send via first class mail

(*T. Maciag Eulogy continued from page 3*)

with competitive spirit amongst the laboratories, Tom insisted that reagents, methods and data were to be shared openly, much to the angst of fellows and students. He told his trainees that "Science is the property of humanity and not of individual labs" and that contributions of individuals will be clarified over time as the fields evolved. Indeed, his lab was the major resource for gram quantities for FGF, numerous cDNA reagents and technology over the years.

In addition to his scientific achievements, Tom was a respected artist. He painted many still life and abstract works of art, much of which he generously gave as gifts to his colleagues. Some of his work is still on display at the Fore Street Galley in downtown Portland, Maine, and in various institutions around the world. I once asked him why he developed and nurtured this passion later in life. He said that this was a form of "release" for his creative energy and frustrations. His abstract paintings on Endocytosis, Traffic, Docking and Cell Surface are simply stunning and give us a glimpse of his creative process at work. Tom was

truly a gifted human being.

When I left Tom's department to take a faculty position in my present institution in 1996, he gave me an abstract painting in shades of purple, grey and oak brown, compartmentalized by ashy white rays of light in blocks. At the back of the painting, he wrote the title, "EDG-1". It seems as though he knew that I would be spending much of my career working on this molecule, which I cloned in his lab in 1990. His vision turned out to be prescient as we identified the ligand for that orphan receptor soon after.

It is indeed a privilege to have known Tom Maciag as a mentor and a friend. He gave, contributed and taught so much. His legacy and his scientific soul will live on for many, many years to come.

*Dr. Hla is at the University of Connecticut Health Center
in Farmington, CT*

JOB OPPORTUNITIES

POSTDOCTORAL POSITIONS IN VASCULAR CELL BIOLOGY

Dartmouth Medical School: NIH-funded postdoctoral positions in Vascular Cell Biology available in the laboratory of Dr. Michael Simons in the Angiogenesis Research Center. The laboratory is focused on mechanisms of fibroblast growth factor and syndecan signaling in endothelial cells with the emphasis on receptor endocytosis and signal complex assembly. Applicants must have a recent MD or a Ph.D. degree and strong background in eukaryotic cell biology. Preference will be given to individuals with working knowledge of vascular biology and confocal microscopy.

Please send CV and 2 letters of reference to:

michael.simons@dartmouth.edu.

Web site: <http://www.dartmouth.edu/dms/angio/>

POSTDOCTORAL POSITION: ANGIOGENESIS DEFECTS IN SCLERODERMA

A two year postdoctoral position is available immediately to study angiogenesis defects in scleroderma. The project will focus on genomic and proteomic analysis of key cell types involved in regulation of angiogenesis and on molecular and cellular assays of endothelial

function.

An MD or a Ph.D is required. Microarray experience is a strongly preferred.

Please contact:

Michael Simons, MD

Angiogenesis Research Center

Dartmouth Medical School

Lebanon, NH 03756

Phone: 603 650 3540

Email: michael.simons@dartmouth.edu

POST-DOCTORAL RESEARCHER IN PPAR RECEPTORS

Post-doctoral researcher position is available to study the role of PPAR receptors in neointima formation (J. Exp. Med. 2004199:763-744). This is a NIH Training Grant position only US citizens and permanent residents should apply. Send your application to:

Prof. Gabor Tigyi

Dept. of Physiology

The University of Tennessee HSC Memphis

894 Union Ave

Memphis, TN 38163

Email: drlpa@physiol.utmem.edu

See the NAVBO
Web Site for more
job listings . . .
[www.navbo.org/
job_listings.htm](http://www.navbo.org/job_listings.htm)

POST-DOCTORAL POSITIONS AVAILABLE IN THE CENTER OF VASCULAR BIOLOGY

Post-doctoral positions available in the center of Vascular Biology at Weill Medical College of Cornell University in the laboratories of Dr. Barbara Hempstead and Rosemary Kraemer. Studies will focus on novel signaling pathways mediating smooth muscle cell apoptosis in

response to pro-neurotrophin-induced activation of the p75 Neurotrophin receptor.

Contact:

Dr. Barbara Hempstead

Dept. of Med/Div of Heme-Onc.

Weill Medical College

1300 York Avenue, Romm C606

New York, NY 10021

Telephone (212) 746-6215

POSITIONS AVAILABLE FOR FACULTY MEMBERS AND POST-DOCTORAL FELLOWS

The Center of Vascular Biology at the Weill Medical College of Cornell University has been established to encourage basic research into the mechanisms of cardiovascular vascular disease. We are recruiting faculty members and post-doctoral fellows to participate in a collaborative environment, with about 15 Center members engaged in various aspects of research relating to vascular biology. The academic appointment will be at a level commensurate with the candidate's credentials and experience, and is offered jointly between the Center and an appropriate basic science or clinical department. We are seeking individuals with an MD and/or PhD degree. Strong molecular or vascular biology experience and work with murine models of atherosclerosis is preferred. Current research areas include angiogenesis, vascular remodeling, regulation of macrophage scavenger receptors and the role of inflammatory mediators and nitric oxide derivatives in vascular responses.

Candidates should send their full CV including names of three references to:

Professor David P. Hajjar

Director of the Center of Vascular Biology

Weill Medical College of Cornell University

1300 York Avenue

New York, NY 10021 USA

Email: dphajjar@med.cornell.edu

Weill Medical College is an Equal Opportunity Employer.

POST-DOCTORAL FELLOW IN IN VIVO CAR- DIOVASCULAR MECHANOBIOLOGY

A candidate is sought for a post-doctoral fellowship to study the response of coronary arteries to the mechanical stresses that accompany their motion on the surface of the heart. In this investigation, the motion of the epicardial arteries of wild type and knockout mice are imaged in 3-D and relations are sought among the derived motion parameters, their mechanical consequences, and the morphological, histopathological and genomic characteristics of the tissue. The successful applicant will participate in the design of the imaging system, carry out mouse surgery (training to be provided), take the lead in tissue characterization, and carry out the necessary statistical analyses. The incumbent will have substantial control of the experimental design and may participate in the analysis of the images; he/she will have license to initiate novel projects that advance the overall research program. There will also be opportunities for mentoring students in the Departmental graduate program.

This position is supported by an NIH Post-Doctoral Training Grant in Biomolecular and Tissue Engineering, and is available to only US citizens or permanent residents.

Salary is competitive and term is negotiable. Office space and benefits are included. Additional benefits provided by the Training Grant include travel allowance, workshop tuition, and a discretionary sum for trainee use.

Please respond to this announcement by electronically sending your resume to:

Morton H. Friedman, Ph.D.

Professor of Biomedical Engineering and Medicine

Email: mhfriedm@duke.edu

Lab: <http://bme.duke.edu/personal/Friedman3/home.html>

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CALENDAR OF SCIENTIFIC MEETINGS

June 1-5, 2004. Westin Harbour Castle Hotel, Toronto, Ontario, Canada. **XIIIth International Vascular Biology Meeting. NAVBO Annual Meeting.** Go to www.ivbm2004.ca

June 13-18, 2004. Kimball Union Academy Meriden, NH. **Gordon Research Conference on Lipoprotein Metabolism.** Go to www.grc.uri.edu for more information.

July 18-13, 2004. University of Washington, Seattle. **Vasculata 2004.** For information: jparedes@u.washington.edu or go to www.uwcvb.org.

Sept. 5-9, 2004. Honolulu, Hawaii. **13th Conference of the International Society of Differentiation.** Register at <http://www.crch.org/isd2004>

September 18, 2004. University of California, Los Angeles. **New Insights into the Treatment of Atherothrombosis.** For information go to www.navbo.org

October 25-27, 2004. Beijing, China. **HUPO Third Annual World Congress - Proteomics: Decoding the Genome.** For information go to www.hupo2004.cn

November 6, 2004. New Orleans, LA. **Second International Symposium on ADMA: an Emerging Cardiovascular Risk Factor.** Contact: ksydow@cvmed.stanford.edu for more information

November 7-10, 2004. New Orleans, LA. **American Heart Association's Scientific Sessions.** Go to <http://scientificsessions.org>

November 8, 2004. Rosen Centre Hotel, Orlando, FL. **Therapeutic Angiogenesis in Cardiovascular Medicine.** Go to www.brjpharmacol.org/misc/announcements.shtml

November 9-11, 2004. Orlando, FL. **American Heart Association Scientific Sessions.** Go to www.scientificsessions.org/portal/scientificsessions/ss/

August 6-12, 2005. Sydney, Australia. **XXth Congress of the International Society on Thrombosis and Haemostasis.** Go to www.isth2005.com/

Fall 2005. Location to be determined. **Cell Signaling Workshop.** Organizer: Michael Reidy, University of Washington. Check the NAVBO web site for updates: www.navbo.org

See page 5 for
the IVBM
Program

Symposium: New Insights into the Treatment of Atherothrombosis

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Saturday, September 18, 2004

at the University of California, Los Angeles

**Organizers: John P. Cooke, Stanford University and
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