Message from the Renal Section Chair
Bill Welch

It has been a fulfilling and rapid 3 years as Chair of the Renal Section. I have enjoyed working with the membership and the Steering Committee during this period. The Renal Section members are actively involved in APS and this makes my job easier.

New Chair
The Renal Section has elected Heddwen Brooks as the Chair for 2011-2014. Heddwen is an Associate Professor in the Department of Physiology at the University of Arizona. Heddwen has past experience on the Steering Committee as both Awards Chair and the Representative for the Committee on Committees. She is a capable leader and will continue to serve the Renal Section over the next 3 years. Let's all welcome Heddwen as our next Chair!

Renal Section Awards
The Renal Section will present awards on April 11 at the Renal Dinner. The major award winners are: Robert W. Berliner Award: Lise Bankir; Carl Gottschalk Lecture: Jeff Garvin; the Young Investigator Award: Robert Fenton. The description of each awardee is provided in detail below.

2011 APS New Format
This year the Renal Section will present all of its sessions in 3 days, April 10, 11 and 12 in the new “Clustering” format. This is an experimental schedule and its success will depend on the members’ acceptance of this format. After the meeting, please let the Steering Committee members know about your experiences or concerns.

Strategic Planning Meeting
I participated in the APS Strategic Plan workshop in January. The Renal Section was well-represented by Jeff Sands (Finance Chair), Pam Carmines (SAC Chair) and me. APS is strong as always and has dedicated leadership. It continues its commitment to physiology research and education. Several issues that the society must face in the future were discussed. A report will be available to the members at a later date. One of the discussion items that generated a great deal of interest was the resurrection of the Fall Physiology meetings.

Nominations
The awards presented by the Renal Section are generally initiated by the membership. I would like to remind everyone to access the submission pages on the APS website if you want to nominate someone for these awards. The leadership of the Section relies on your input.

Dr. Lise Bankir is an internationally respected renal physiologist who has contributed now classical studies that have advanced our understanding of the renal concentrating mechanism and the effects of chronic elevations of plasma vasopressin on renal function and blood pressure. Her studies have ranged from comparative studies of urinary concentrating ability and the progression of chronic
renal failure, measurements of the regional distribution of GFR, experimental studies in normal and transgenic animals, and molecular studies of transporter expression, to studies in human subjects.

Dr. Bankir earned her Ph.D. in Physiology under the directorship of Professor JP Grunfeld at the Sorbonne, Paris in 1971. Her research career developed entirely within INSERM, where she made steady advancement and was the Head of the Renal Physiology Group from 1986-2008. She has published over 100 studies in outstanding journals and has trained many successful scientists.

Dr. Bankir’s work in a variety of species with differences in concentrating ability showed important correlations between morphology and concentrating function. She was one of the key investigators who recognized and carefully documented the heterogeneity of superficial versus deep nephrons. These observations required a new and consistent nomenclature and led to the classic article “A standard nomenclature for structures of the kidney”, by Drs. Kriz and Bankir, published simultaneously in the American Journal of Physiology, Kidney International, Plüger’s, and Anatomy & Embryology in 1988.

Dr. Bankir’s major focus has been on understanding the role of vasopressin on fluid balance maintained by the kidney. Her studies on the concentrating mechanism and her work on species with different concentrating abilities, and in the Brattleboro rat compared with the normal rat, helped her to recognize that chronic vasopressin stimulation exacerbated the progression of chronic renal failure, diabetic nephropathy, hypertension, and edema in salt-retentive states. Dr. Bankir was also the first investigator who recognized the potential importance of vasopressin as an antinatriuretic agent. She carefully documented both the acute and chronic antinatriuretic effects of vasopressin and their potential role in salt retention and hypertension. She is recognized as a leader in the renal physiology of vasopressin and its role in renal causes of several disorders. Dr. Bankir has also collaborated on several clinical studies that provided clear evidence that vasopressin promotes Na+ retention in humans.

Her career has been a prime example of extreme diligence in pursing a scientific problem with all available methodologies and applying the results from the laboratory to their practical application. Renal physiologists will continue to benefit from her pioneering work and the Renal Section is honored to recognize her with the 2011 Robert W. Berliner Award.

The Berliner Award Committee was Bill Welch (Chair), Tom Kleyman, Brooks Robey and Heddwen Brooks.

**2011 Carl W. Gottschalk Lecturer**  
**Jeff Garvin**

Jeff Garvin, Ph.D. will present the Carl W. Gottschalk Lectureship at the annual EB meeting on April 11, 2011. Dr. Garvin is a well-respected leader in renal physiology and hypertension, whose work has gained recognition over his career.

Dr. Garvin earned his Ph.D. at Duke University under the mentorship of Dr. Lazlo Mandel. There he began his interest in ion transport, identifying sodium channels in the toad bladder and tongue. He then joined Dr. Mark Knepper’s lab at the NIH as a post-doctoral fellow and performed a series of very influential studies on ammonium transport in proximal tubules and thick ascending limbs. These studies established beyond any doubt that both renal tubule segments are capable of significant transport of ammonium ions. This was an extremely important set of observations, adding substantially to our understanding of renal acid base transport in the mammalian kidney.

At NIH, he developed a myriad of technical skills, which provided a solid basis for his research career. However his work generated from the perfusion of isolated rat proximal tubules in vitro, has led to his most novel findings. In his first faculty position at Henry Ford Hospital, he focused on the regulation of solute and fluid transport in proximal tubule, thick ascending limb and collecting duct using the isolated perfused tubule technique and cultured cell techniques. He has shown convincingly that angiotensin II stimulates salt and fluid absorption from the rat PT and that atrial natriuretic factor inhibits angiotensin II
stimulated fluid absorption. Later he focused on the roles of nitric oxide and superoxide in regulation of solute transport in the thick ascending limb. One of his most important discoveries was the novel observation that superoxide stimulates salt transport in the TAL. Subsequent studies have tested function in other nephron segments and have explored the regulation of tubuloglomerular feedback. All of these studies have derived from unique applications of difficult techniques to further understanding of salt and water handling by the nephron and how it affects systemic blood pressure.

Dr. Garvin has published more than 110 studies and his work has been supported by numerous NIH grants. He presented the Dahl Lecture at the Council for High Blood Pressure Research meeting in 2005. He is currently an Associate Editor to American Journal of Physiology Renal Physiology and was Chair of the FASEB Summer Research Conference on Renal Hemodynamics in 2010. In addition Dr. Garvin has mentored a productive group of trainees now working as independent scientists.

Dr. Garvin is an outstanding scientist who continues to make important and novel discoveries in how the kidney regulates salt and water balance. The Renal Section is honored to have Dr. Garvin present the Gottschalk Distinguished lecture for 2011.

The Gottschalk selection committee was Bill Welch, (Chair), Tom Kleyman and David Pollock.

The Renal Section presents the Young Investigator Award for 2011 to Robert Fenton, Ph.D. Professor, Department of Anatomy, University of Aarhus, Aarhus, Denmark. Dr. Fenton will present his Award lecture at the EB meeting and will be honored at the Renal Section dinner on April 11.

Dr. Fenton earned his Ph.D. in Molecular Physiology at the University of Manchester (UK) in 2001. Following a one-year fellowship at Manchester, he did his post-doctoral training in the Laboratory of Kidney and Electrolyte Metabolism, directed by Mark Knepper, Ph.D. His post-doc training was supported in its third year by the prestigious Claude Enfant Fellowship. Following his post-doctoral training, he was recruited to Aarhus in 2005. There he has continued to be recognized for his research abilities, earning the Marie Curie Intra-European Fellowship (2007), the Danish Medical Research Council young investigator award (2007) and the APS Renal Section New Investigator Award (2008). He is currently the MSO Professor of Molecular Biology in the Department of Anatomy, University of Aarhus. Dr. Fenton’s rise to academic achievement is both rapid and well-earned.

Dr. Fenton’s doctoral work identified urea transporters and explored gene expression and regulation of transporters, as well as chromosomal location. He continued a molecular biology approach to study urea transporters at NIH, but there combined his expertise with physiological regulation studies. He made a major breakthrough in 2004, reporting a urinary concentrating defect in urea-transporter-deficient (UT-A1/3) mice that he developed. These mice exhibited a urinary concentrating defect, but the mechanism of this defect proved to be different from what had been previously accepted and has subsequently influenced our understanding of urea transport. He later characterized the phenotype of UT-A transporter deficient mice, which are now widely used in renal physiology. At Aarhus, he has continued to study urea transport, but turned his attention more to aquaporins and other critical renal transporters. His interest in aquaporin 2 led to the discovery of phosphorylation sites on the AQP2 C-terminus that has become a recent focus of his work. Among his findings are that s269 phospho-AQP2 is expressed only at the cell surface; that association of several proteins with AQP2 is dependent on its phosphorylation state; that phosphorylation does not modify AQP2 water permeability; and that phosphorylation of AQP2 regulates its endocytosis. He continues to have interest in other renal transporters and membrane proteins, as well, including ferroportin-1, succinate receptors and AQP4.
Dr. Fenton exemplifies the modern physiologist who combines molecular, cell and whole kidney approaches to solving problems. His successes early in his career foreshadow a promising and productive scientist. The Renal Section is happy to recognize Robert Fenton with the Young Investigator Award for 2011.

The Young Investigator Award committee was John Imig (Chair), Thomas Pallone, I. David Wiener.

Call for Nominations – Due March 31st, 2011

2012 Young Investigator Award

The 2012 Renal Section Young Investigator Award ($1000, reimbursement for up to $1500 in travel expense reimbursement and reimbursement of the annual meeting advance registration fee) recognizes an outstanding young investigator pursuing research in renal physiology, pathophysiology or hypertension. Candidates must be less than 41 years of age or less than 15 years beyond earning their first doctoral degree, and must have published original work in American Journal of Physiology Renal Physiology (or similar journal) during the preceding four years. Candidates will be judged on their nomination letters, funding record and publications. The recipient will present the Young Investigator Award Lecture, organize/chair a featured topic session, participate in the Renal Section’s Posters and Professors Reception and be recognized at the Renal Dinner during EB 2012. Candidates or nominators must upload the candidate’s CV a nomination letter and a seconding letter. Nomination materials must be submitted no later than March 31, 2011.

2011 Renal Section Awards

Brooks Robey (Chair) and Volker Vallon (Co-Chair)

The APS Renal Section Awards Committee has selected four finalists for the 2011 Renal Section Predoctoral Excellence in Renal Research Award – Ryan J. Cornelius (University of Nebraska), Daria Ilatovskaya (Medical College of Wisconsin), Vanessa D. Ramseyer (Henry Ford Hospital), and Mohamed A. Saleh (Georgia Health Sciences University) – and five finalists for the 2011 Renal Section Amgen Postdoctoral Excellence in Research Award – Lucilia M. A. Lessa (Yale University), Bernardo Ortega (University of Maryland), Agnes Prokai (University of Southern California), Lena Scott (Karolinska Institute), and Lumei Xu (Case Western Reserve University). All finalists are scheduled to present their work at the Posters & Professors session to be held at the Grand Hyatt Washington, McPherson Square on Sunday, 10 Apr 2011 during EB2011. Winners will be then announced at the Annual Renal Section Banquet to be held on Monday, 11 Apr 2011.

Other awards to be presented at that time will include the 2011 Renal Section New Investigator Award to Mitsi A. Blount (Emory University) and 2011 Renal Section Research Recognition Awards to Zhengrong Guan (Georgia Health Sciences University), Michelle Gumz (University of Florida), Paul M. O’Connor (Medical College of Wisconsin), and Prabhleen Singh (University of California, San Diego). Competition for each of these awards was keen again this year. Kudos to all who applied!

APS Trainee Advisory Committee (TAC)

Rick Grimm

This year the Trainee Advisory Committee (TAC) is presenting a symposium at EB called “The Individual Development Plan – Plotting a Career Trajectory.” The symposium is scheduled for Wednesday, April 13, from 10:30 – 12:30 in Rm 147B. Please plan on attending. A complete list of trainee sessions can be found at http://www.the-aps.org/meetings/eb11/program.htm.
Also, don't forget to purchase tickets for our section dinner at EB. The ticket price includes admission to the after party where we are planning on having an open bar, DJ, karaoke machine, and at least one Wii system. Come and challenge your favorite reviewer or PI to 3 holes of golf – taunting and side betting are encouraged. If you are a grad student or postdoc considering giving up the big bucks of academia for a career in music, come and give us your best (or worst) version of Lady GaGa or Lady Antebellum. We will give you an honest assessment that will probably be more positive than your last committee meeting. We are planning on everyone having a good time this year, so plan on being there!

From the Treasurer
John Imig

Renal Dinner - 2011
WHERE: Washington Marriott at Metro Center  
775 12th Street NW  
Washington, DC 20005  
202-737-2200
WHEN: Monday, April 11, 2011; 7:00-11:00 PM
COST: $60 Faculty, $30 Students/Postdocs
MENU: Select from Beef/Fish/Vegetarian
HOW: Order tickets online at: https://www.the-aps.org/cgi-bin/ecom/eticket/ticket_list.cgi
DEADLINE: Deadline for on-line ticket purchase is March 1, 2011. Tickets are sold on a first-come-first-served basis. A few tickets will be available at the APS office in the Grand Hyatt. Please contact John Imig if you have any special dietary restrictions: jdimig@mcw.edu
Questions: John Imig, Banquet Organizer: jdimig@mcw.edu; 414-955-4785; Catherine Ohnmacht (APS Sections Administrator): coihnacht@the-aps.org; or 301-634-7976.

NEW: After Dinner Event
The APS Renal Section is excited to announce that an After Dinner Event will follow the Renal Dinner. The cost for this event is included in the Renal Dinner Ticket. This event will be held at the same venue and will include entertainment that is being arranged by our Trainee Advisory Representative, Rick Grimm. Come and show us your Wii and karaoke skills (or lack thereof!).

First, we wish to extend our congratulations to Sungmi Park, Lisa Harrison-Bernard and colleagues for their work on the role of ACE-independent intrarenal ANG II formation in type II diabetes that was published last year in AJP:Renal Physiology. This manuscript was selected by the Renal Section Steering Committee as the AJP:Renal Physiology paper of the year. Dr. Park will receive a certificate in recognition of this award at the Renal Section Dinner. We also congratulate our star reviewers: Orson Moe, Nour-Eddine Rhaleb and Carsten Wagner. They will be recognized at our Editorial Boards Meeting at EB.
The journal currently has calls for papers on the biology of the central cilium and cystic diseases of the kidney, and on programming normal renal development and modeling disease pathogenesis. In conjunction with *AJP:Cell Physiology*, we will be publishing a series of review articles that highlight areas of research pioneered by Dale Benos. We are excited to announce that *AJP:Renal Physiology* is initiating a podcast series that will highlight recent work published in the journal. These podcasts will be available on our website. Our first podcast will feature a discussion with Lisa Harrison-Bernard that focuses on her 2010 paper of the year. On a final note, we encourage all authors to carefully review our instructions for preparing figures prior to submitting work to the journal.

Many thanks to everyone who submitted abstracts and/or excellent symposia proposals for EB 2011 in Washington, DC. We continue to encourage the renal community to submit symposium proposals for the Experimental Biology Meetings. This is a great opportunity to organize friends and colleagues working in areas aligned with your interests to give talks highlighting their work. Complementary registration and additional funds to help with travel expenses are part of the package. To initiate the process, a PDF form is available from the APS site at [http://www.the-aps.org/meetings/eb.htm](http://www.the-aps.org/meetings/eb.htm). Please just fill it out and send it to us. We encourage investigators at all career stages to organize sessions, and particularly hope that junior investigators will become involved. Please help keep the exciting and innovative symposia in the pipeline!

We received 167 abstracts for presentation at EB 2011 in Washington, DC. Current details of the program are available at: [http://www.the-aps.org/meetings/eb11/index.htm](http://www.the-aps.org/meetings/eb11/index.htm). There are many excellent sessions on the schedule; the following may be of particular interest to Renal Section members:

**Sunday, April 10, 2011**
10:30 AM-12:30 PM  
Symposium: Cyclic Nucleotide Signaling in Water Homeostasis  
Chaired: Mitsi A. Blount

3:15-5:15 PM  
Featured Topic: Young Investigator Award  
Chaired: Robert Fenton

**Monday, April 11, 2011**
8:00-10:00 AM  
Featured Topic: Gender Differences: Renal Physiology and Pathophysiology  
Chaired: Michaele Manigrasso and Christine Maric

10:30 AM-12:30 PM  
Symposium: Molecular Imaging in Renal Physiology  
Chaired: Pablo A. Ortiz and Judith Blaine

3:15-5:15 PM  
Symposium: Carl W. Gottschalk Distinguished Lectureship of the APS Renal Section  
Chaired: Jeff Garvin

Finally, we want to remind everyone there are also opportunities to organize APS Conferences in your field of interest. The APS Conference Committee will work with organizers to assist in all aspects of conference planning to facilitate the task of putting on the conference, and the APS provides up to $30,000 toward reimbursement of invited speaker direct costs and registration. Proposals are due April 1, August 1, and December 1; guidelines and online application form can be found online at: [http://www.the-aps.org/meetings/aps/index.htm](http://www.the-aps.org/meetings/aps/index.htm) Questions should be directed to Sarah Knox (sknox@the-aps.org) or Gerald A. Meininger, Ph.D. (MeiningerG@missouri.edu).
The APS PIC is sponsoring a Symposium at EB 2011 entitled “Stem Cells in Physiology and Drug Discovery” (chaired by Magdalena Alonso-Galicia, Ph.D. and Cheryl Watson, Ph.D.) on Sunday, April 10, at 8:00 – 10:00 am in the Convention Center, Rm. 145A. Recent breakthroughs have allowed the generation of induced pluripotent stem cells (iPS cells) from somatic cells, which maintain all the potential of embryonic stem cells without using embryos, eliminating ethical concerns. These findings have generated excitement and interest in the biomedical research community as well as in the pharmaceutical industry. The first stem cell trial in the US has recently been approved by the FDA for severe spinal cord injury. Beyond therapeutics, the promise of using differentiated human stem cells in drug discovery as disease relevant and toxicology models is maturing. Stem cells and cell lines derived from iPS cells of patients can accelerate the development of existing targets for different diseases and provide opportunity to explore innovative treatments in regenerative medicine. This symposium will review the current use of pluripotent stem cells as enabling technology in drug discovery as well as provide examples of therapeutic approaches.

In addition, the APS Translational Physiology Group and the PIC are co-sponsoring a Symposium entitled “The Cardiac Sarcomere as a Therapeutic Target” (chaired by John Liles, Ph.D. and Kelly R. Pitts, Ph.D.) on Wednesday, April 13, at 3:15 – 5:15 pm in the Convention Center, Rm. 145A. The cardiac sarcomere is the core structure responsible for active mechanical heart function and dynamics. A better understanding of the interactions at the crossbridge level has led to the discovery of novel pathways and to the development of new clinical targets. In this symposium, key opinion leaders in the field will a) review the sarcomere components associated with regulating basic cardiac function; b) discuss the effect of calcium signaling on sarcomere proteins; c) address the clinical consequences of certain genetic mutations of the sarcomere; and d) review the successes and challenges that sarcomeric modulators are experiencing in the clinic. Attendees will gain an appreciation for the translational nature of studying and targeting the cardiac sarcomere.

The PIC Novel Disease Model Award is now sponsored by Plato BioPharma, Inc., a world leader in in vivo model development and execution. The PIC Novel Disease Model Award will be granted to each a graduate student and a postdoctoral fellow who submit the best abstracts at EB 2011 that describe a novel disease model. The model can be in vitro or in vivo but should clearly emphasize the potential utility of the system for future research related to a disease. The award is $500 for the graduate student and $800 for the postdoctoral fellow categories, respectively, is sponsored by the PIC and the APS, and will be presented at the APS Business Meeting on Tuesday, April 12, 5:45 – 7:00 pm in the Convention Center, Ballroom B.

You’re invited! Come meet, eat and socialize with your fellow Physiologists who are working in the corporate, industrial, or academic sector. The 11th Annual Physiologists in Industry Committee Mixer at EB 2011 is on Sunday, April 10, 7:00–8:15 pm (location TBD). Free Hors d’oeuvres will be available along with a cash bar and information on the roles of Physiologists in Industry. This is a great opportunity to network with industry and academic APS members alike – we hope to see you there!

The APS PIC meeting is scheduled for Monday, April 11, 2:30 – 4:00 pm (location TBD) – this is the committee’s annual opportunity to have a face-to-face meeting to discuss committee business and new initiatives. Please feel free to contact your PIC section representative if there are issues to be brought to the attention of the PIC.
How to Be an Advocate: A Workshop for Scientists
Saturday, April 9, 2011
1-3 PM
Walter E. Washington Convention Center Room 147A

Join the members of the APS Science Policy Committee to learn how to be an effective advocate for science. This workshop will address what scientists can do to encourage federal support for research and what you need to understand about the budget process. You will also learn how to schedule a meeting with your Member of Congress while you are in Washington. Experienced science advocates will be available to guide small group discussions about advocacy and answer questions about meeting with Members of Congress.

For more information on planning ahead to visit Capitol Hill during EB, see the APS Science Policy website: http://www.the-aps.org/pa/advocate/AdvocateforScience.htm