

American Nuclear Society

IRD & BMD Fall Newsletter

Welcome to the combined Fall Newsletter of the Isotopes and Radiation Division and Biology and Medicine Division of the American Nuclear Society! The newsletter is being done slightly differently than in the past since both Divisions have some shared interests in programing. The following pages provide an overview of upcoming activities and other areas of potential interest to members of both Divisions. We also are working to update the website. Your feedback is greatly appreciated. Please contact L. Raymond Cao(cao.152@osu.edu), IRD Chair, or Bryan Bednarz (bbednarz2@wisc.edu), BMD Chair, with any questions or comments.

We hope you find the information useful and we encourage you to get involved. There are many opportunities for involvement including the executive committees, developing ANS position papers, review of papers for the national meetings, and participation at national meetings by giving papers or helping to organize technical sessions.



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IRD and BMD Executive Committee

IRD

Chair: L. Raymond Cao Vice Chair: Hyoung K. Lee Secretary: Kimberly A. Burns Treasurer: R. Gregory Downing

Executive Committee Members:

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Staff Liaison: Toni Bishop **Board Liaison**: Dorothy R. Davidson **Ex Officio**: Steven R. Biegalski Hans D. Gougar

BMD

Chair: Bryan P. Bednarz **Vice Chair**: Sam Glover **Secretary/Treasurer**: Dimitri Tamalis

Executive Committee Members:

Bryan P. Bednarz Steven Biegalski Elisabete De Nadai Fernandes Sam Glover Dragan Mirkovic Robert F. Penn Dagistan Sahin Nicholas M. Spyrou Dimitri Tamalis

Staff Liaison: Toni Bishop **Board Liaison**: Heather J. M. Chichester **Ex Officio**: Hans D. Gougar Stephen P. LaMont

IRD/BMD Newsletter October 2015



Bryan Bednarz Biology & Medicine Division <u>bbednarz2@wisc.edu</u> 608-262-5225

BIOLOGY & MEDICINE DIVISION CHAIR MESSAGE

Let me begin by letting you know that I'm truly honored to serve as the chair of the Biology and Medicine Division of ANS. I've been a proud member of ANS since my undergraduate days in the Nuclear Engineering Department at the University of Michigan, and since then I have had the privilege of serving the BMD in different leadership capacities including as an executive committee member and as the Vice-Chair. My appreciation for the importance of a life science division in ANS has grown over the years, and I believe that our division is an integral part of the mission of the Society, being "the advancement of science and engineering relating to the atomic nucleus and of allied sciences and arts."

However, as I write this letter, I fear that our division is losing its identity within our Society. Undoubtedly, we have faced difficult times over the last several years. For many of us, tightened budgets and increased travel restrictions are becoming the norm. As a result division membership rates have declined significantly over the last decade, while attendance and participation at our national conferences have reached record lows. Volunteer opportunities in our division remain vacant. Competition with other professional organizations for new members and conference participants further exacerbates the issue. As a result, we risk losing a division that has made relevant contributions to the Society for more than 30 years.

"The ANS needs a strong life sciences division advocating for the beneficial uses of nuclear science!"

DIVISION SNAPSHOT

- 398 members
- 120 student members
- 30 new members in 2014
- 3.5% of the total ANS membership

While it's appropriate to place some of the blame on economic factors, some of the blame is also on us. We simply need to do a better job of serving our division and Society. Despite challenging times, nuclear science and technology is more relevant in biology and medicine than ever before. It's not time to remain complacent as a division; it's time for us to find a niche and capitalize. Therefore, my goal for the BMD is simple, to strengthen the identity and visibility of our division within the ANS by fostering new initiatives that focus on advocacy and outreach. We will identify special focus areas in medicine and biology where our division and ANS should have a voice. The ANS **needs** a strong life sciences division advocating for the beneficial uses of nuclear science!

I'm excited to launch the "Think Local" initiative, which is an effort to support local outreach endeavors of our members that serve the mission of our division. The initiative will provide an efficient and cost-effective way for our members to advocate for the advancement of nuclear science and technology particularly in the fields of medicine and biology. We will actively seek out collaboration with local and student chapters of ANS, along with strategic partnerships with similar groups in other sister organizations. We will help to identify appropriate forums for our members to make contributions. It is often small grass-root efforts that eventually make a larger national or even international footprint.

We will also be ramping up our support for topical meetings or sessions, and we are actively seeking proposals that are aligned with our strategic goals as a division. We currently have a few such events already in the works. First, is a special session "On the ⁹⁹Mo/^{99m}Tc crisis; the scientific, technological and regulatory challenges in alternative production of ⁹⁹Mo," which will take place on October 29th in Madison, WI. This session is co-sponsored by BMD and the North Central Chapter of the American Association of Physicist in Medicine. We are also supporting an ANS Topical Meeting on the, "Applicability of Radiation-Response Models to Low Dose Protection Standards," which will take place September 23-27, 2018 in Tri-Cities, WA. This event is being co-sponsored by the Health Physics Society and planned and organized by the Eastern Washington Section of the ANS.

Finally, we need to do a better job of serving our student members and young members. Students and young members make up 40% of our membership. Therefore, we will be working closely with our students and young members along with the Young Members Group to support their interests in the division and to improve our contribution to their careers. We will also be providing support for the ANS Student Conference hosted by the University of Wisconsin – Madison taking place March 31 – April 3, 2016.

If there is anything that I can do to make your membership experience more enjoyable or fulfilling please do not hesitate to contact me by email (<u>bbednarz2@wisc.edu</u>) or phone (608-262-5225). I also welcome any new ideas or suggestions to improve our division. I'm looking forward to a productive year. And remember to get involved and THINK LOCAL!

Buyan P. Bednary



Division by industry as of March 31, 2015.



Isotopes & Radiation Division L. Raymond Cao <u>cao.152@osu.edu</u>

DIVISION SNAPSHOT

- 847 members
- 169 student members
- 7.4% of the total ANS membership
- Four technical sessions in 2015 ANS Winter meeting
- IRD sponsored the 8th International Conference on Isotopes (8ICI) in August 2014

ISOTOPES & RADIATION DIVISION CHAIR MESSAGE

As I reflect the past a few years of serving as IRD treasure and executive committee, it has been my great pleasure to become the IRD chair of year 2015-2016. I am also pleased to welcome Dr. Dorothy R. Davidson, who is our new liaison between the IRD and the Board, appointed by Dr. Gene Grecheck, the ANS Board of Director. I have observed the impact of our division on the society in terms of sponsoring students for attending national conferences, organizing/co-sponsoring or supporting national and international meetings, and many other broad impacts. Our professional membership has remained relatively constant, representing a diverse membership from academia, government, and industry. As of March 31st, 2015 we have 847 members and 169 are student members.

In line with our core mission on fundamental and applied technology related to the production of isotopes, nuclear methods of analysis, and the measurement of radionuclides, IRD is continuing its strong efforts on organizing technical sessions in ANS meetings and topic meetings. There are four IRD sessions planned for the November 2015 ANS Winter. The division has helped sponsor the Methods and Applications of Radioanalytical Chemistry (MARC) meeting for nearly 45 years and the most recent one, MARC X, was successfully held in March 2015, attracting 475 papers from 30 countries around globe. The Division has also successfully helped sponsor the 8th International Conference on Isotopes (8ICI) in August 2014.

At IRD, we have created a supportive environment for young people involvement in division activities; two of the executive committee members are young professionals. IRD has also been very supportive to sponsor students for attending conferences. This year, Alexander Burruss from the U.S. Military Academy received the IRD award to attend student conference at Texas A&M. We have pledged \$500 support to the University of Wisconsin student conference and \$500 support for student travel to the 2015 national meeting. Additionally, IRD has provided two \$500 travel awards to students who attended the MARC X conference.

"We have created a supportive environment for young people involvement in division activities" Based on the review of the candidates for the Radiation Science & Technology Award by IRD Honors & Awards committee, it is my privilege to acknowledge

Dr. Bill Dunn at Kansas State University as the recipient of this award. The recognition will be made at ANS 2015 Winter Meeting in Washington, DC to recognize Dr. Dunn's long-term contribution to the society as well as to the state-of-the-art in advancing radioisotope measurement applications. This year's recipient of the Vogt Radiochemistry Scholarship goes to Ashlyn Jones, a student at University of Tennessee.

Among many new initiatives, a notable one is the dramatic expansion of IRD technical program committee to 11 sub-committees. If you are interested in becoming more involved please contact me at <u>cao.152@osu.edu</u>. Another initiative is the start of collaboration between IRD, Nuclear Nonproliferation Policy Division (NNPD) and Fuel Cycle and Waste Management Division (FC&WM) on the planning to host upcoming national meetings with any session's topics interested by all three divisions.

Looking ahead, IRD will continue on its sound trajectory of growth and expansion to better serve the interests of our division members as well as the society.



IRD/BMD Newsletter October 2015



Contact Information General Chair: Steve LaMont <u>lamont@lanl.gov</u>

Program Chair: Sam Glover <u>sam.glover@uc.edu</u>

MARC X-METHODS AND APPLICATIONS OF RADIOAN-ALYTICAL CHEMISTRY

The Biology and Medicine Division along with the Isotopes and Radiation Division and Northern California section of the ANS hosted the 10th International Conference on Methods and Applications of Radioanalytical Chemistry at the Sheraton in Kona, HI. The conference was held April 12-17, 2015 and was well attended with 370 scientists and students from over 30 countries participating. There were 295 oral presentations and 181 posters presented at the conference and approximately 150 will be published in the peer reviewed Journal of Radioanalytical and Nuclear Chemistry in early 2016.

A highlight of the conference included awarding the 2015 Hevesy Medal Award to Dr. Susanta Lahiri who provided an outstanding lecture during the award ceremony. Additional details of the conference and proceedings may be found at the conference website: <u>http://www.marcconference.org</u>.

The MARC conference organizer committee would like to thank the session organizers and presenters and attendees who make all this possible.

Plans are already underway for MARC XI! The Sheraton in Kona, HI will again be the venue and serve as the conference hotel. Please contact Sam Glover (sam.glover@uc.edu) or Steve LaMont (lamont@lanl.gov) with any questions regarding the MARC conference. MARC XI will be held April 8-13, 2018. Additional information will be available on the conference website (see address above).

Mahalo,

MARC X Organizing Committee



THE 8TH INTERNATIONAL CONFERENCE ON ISOTOPES AND EXPO

The 8th International Conference on Isotopes and Expo became part of the BMD/ IRD initiative on a sequence of embedded topical meetings on isotopes in the ANS annual meeting series. Members of the BMD, IRD, and AAD program committees together with Paul Dickman, Argonne National Laboratory, General Chairman of the 8th International Conference on Isotopes and Expo, formed the core of the organizing committee in 2012 and developed the conference together with specialists in the isotope fields over the next two years. The outcome of these efforts, a very successful ANS Conference, has been appropriately summarized by Paul Dickman.

The 8th International Conference on Isotopes and Expos was held at the Hyatt Regency-Chicago from August 24 - 28, 2014 and was sponsored by the American Nuclear Society and the World Council on Isotopes. The ICI conferences have been held since 1995 to highlight the importance of nuclear science, medicine, and technology in advancing human health and protection of the environment.

The goal of the ICI is to "Provide an international forum for sharing and promoting safe and environmentally sound isotope technologies that advance global well-being." This 8th meeting was truly was an international conference with representatives from 31 countries comprising nearly half the attendees. We were very pleased to welcome large international delegations from Korea, Russia, France, and Canada, as well as some first time ICI attendees from Saudi Arabia and Mongolia. Approximately 450 people attended the conference and we had 22 expo exhibitors including key exhibitors:

QSA Global

Rosatom/JSC Isotope Argonne National Laboratory US DOE Office of Science Isotope Program 8^m C¹4 CHICAGO

"Provide an international forum for sharing and promoting safe and environmentally sound isotope technologies that advance global well-being."

The members of the organizing committee set the theme for this conference as "Preparing for Tomorrow" with special plenaries to highlight this topic. Our Sunday evening opening Plenary highlighted welcoming remarks from Paul T. Dickman, General Chairman, Myung-Chul Lee, President WCI, Peter Littlewood, Director Argonne National Laboratory, and Donald Hoffman, Past President ANS.

A special tribute was held for Prof. Heino Nitsche to honor his support and dedication to the isotope science and technology. Darleane Hoffman University of California- Berkeley, Annie B. Kersting, Lawernce Livermore National Laboratory, and Syed M. Qaim, Forschungszentrum Juelich, provided moving tributes and shared their memories of their friend and colleague.

Setting the stage for the conference, we were privileged to have two Sunday plenary lectures delivered by:

Dale E. Klein, Associate Vice-Chancellor, University of Texas Systems and Former NRC Chairman, "Challenges for the Next Generations: Dispelling the Ghosts of TMI, Chernobyl, Fukushima, and Nuclear Terrorism"

Jong Kyung Kim, President, Korean Atomic Energy Research Institute, Korea, "The Importance of the Government's Role on the Establishment of a Radioisotope Supply Chain" For the Tuesday of the 8th ICI, organizers created a special session that focused on the role of women in advancing nuclear science. A century ago, research physicist and chemist Marie Curie founded the Curie Institute. The advent of World War I changed the center's focus from research to applied nuclear technology. Today, the role of women in the field of nuclear sciences is expanding, changing the way the public perceives the field. The 8th ICI audience was truly privileged to hear an extraordinary panel led off by

Jean-Louis Alberini, Director of Nuclear Medicine at the Curie Institute in Paris, "Radium: From Discovery by Marie Curie to Medical Applications"

Janice Dunn-Lee, Deputy Director General (IAEA), "The Next Marie Curie: The Role of the IAEA in Advancing Women in Nuclear Science"

Darleane C. Hoffman, Professor Emerita, University of California-Berkeley), "Some Reflections on my 70 Year Career in Chemistry and the Changing Status of Women"

Following the panel a plenary lecture was given by Dr. Hoffman on "The Role of Periodic Tables in the Discovery of New Chemical Elements."

On Wednesday the WCI President's Forum brought a broad discussion on policies affecting Government and industry. WCI President Myung-Chul Lee and incoming WCI President Van Zyl de Villiers hosted this special forum on policies that may affect future supplies of isotopes. The modern world needs isotopes for public health and prosperity, however increasing concerns about safety and non-proliferation are changing how the market meets these needs. This forum provided an extraordinary opportunity for 8th ICI attendees to hear from top governmental officials and senior policy makers on emerging issues and their concerns and thoughts about the future:

Allison Macfarlane, Chairman, Nuclear Regulatory Commission

Ramzi Jammal, Executive Vice-President and Chief Regulatory Officer, Canadian Nuclear Safety Commission

Chris Whipple (ENVIRON) Principal, Chair NAS Committee on Medical Isotope Production without HEU

Michael J. Guastella, Executive Director,, Council on Radionuclides and Radiopharmaceuticals, Inc.

The last day of the conference saw a wonderful set of Closing Ceremony plenary lectures that were wide ranging but once again brought home the theme of "Preparing for Tomorrow".

Timothy E. Payne Australian Nuclear Science and Technology Organization, "Emerging Applications of Nuclear and Isotopic Techniques in the Environmental Sciences"

Andreas Türler, Paul Scherrer Inst/Univ of Bern, "Heavy and Super Heavy Elements Research"

Henry F. VanBrocklin, University of California San Francisco, "The Future of Molecular Imaging: A Radiochemist's Perspective"

The final presentation of the day was given by Prof. Ilham Y. Al-Qaradawi, Qatar University and General Chairman of the 9th ICI. Prof. Al-Qaradawi outlined the proposed location and venue for the 9th ICI in Doha Qatar in 2017. The conference ended with my giving special thanks to my Organizing Committee, ANS Staff, and a special thanks to Dr. Rolf Zeisler who helped to shape the extraordinary technical program that will make 8th ICI a memorable meeting.

Selected papers from the Conference have been published in the Journal of Radioanalytical and Nuclear Chemistry, Volume 305, Issue 1, July 2015. Please refer to these articles for an impression on the scope of the isotope topics. The BMD and IRD program committees will strive to keep ANS members informed on these important issues with a continuation of this topical meeting series.



COMPUTATIONAL AND MATHEMATICAL CHALLENGES IN PARTICLE THERAPY

The American Nuclear Society's (ANS) Computational Medical Physics Work Group (CMPWG) held a workshop on Sunday, April 19, 2015, in Nashville, Tennessee. The workshop was offered in conjunction with the Joint International Conference on Mathematics and Computation (M&C), Supercomputing in Nuclear Applications (SNA), and Monte Carlo (MC) Method. The organizers included Wayne Newhauser (Louisiana State University), Pedro Vaz (Instituto Superior Técnico (IST),Portugal), Arzu Alpan (Westinghouse), and Bernadette Kirk (Kirk Nuclear Information Services).

One of the challenges in medical physics involves the application of state-of-the-art Monte Carlo, deterministic and hybrid computational tools in determining dose distributions. The use of computational phantoms as a guide also poses a challenge. As computers become more and more powerful, dose calculations can readily be generated in much less time with sophisticated software.

The workshop featured a diverse panel of researchers engaged in research of relevance to radiation therapy. The workshop was held to foster the exchange of ideas and information across disciplines, including radiation transport, radiation protection and shielding, accelerator physics, dose reconstructions, radiogenic side effect, mathematical modeling, Monte Carlo simulation and high performance computing.

"As computers become more and more powerful, dose calculations can readily be generated in much less time with sophisticated software."

Pedro Vaz of IST opened the workshop by giving an overview of the computational issues of radiation protection and dosimetry in medicine. Computer software applications in medicine included GEANT4 by Makoto Asai of the SLAC National Accelerator Laboratory, TITAN by Ali Haghighat of Virginia Polytechnic, and COMET by Farzad Rahnema of Georgia Institute of Technology.

Proton therapy was also a key topic of the workshop. Dr. Marcio Fagundes, MD, radiation oncologist of the Provision Center for Proton Therapy in Knoxville, Tennessee, spoke on expanding the clinical uses of proton therapy and the current utilization of proton beams and future indications. Ben Robison, medical physicist from the Provision Center for Proton Therapy, presented the current and future trends in proton therapy and a roadmap for innovative developments. Ken Van Riper of White Rock Science addressed the shielding models for constructing proton centers.

A panel discussion, moderated by Pedro Vaz, was held at the end of the workshop.



ENGINEERING POWER PROTON Engineering Benefit To technology EDUCATION To technology EDUCATION To nucleus EDUCATION To nucleus

Expand your network. Exchange ideas. Explore opportunities.

There's no place quite like ANS National Meetings for being in your element. We are excited to be back at the Wardman Park Marriott! Make sure to join us in Washington D.C. to revisit with your committees, refresh your involvement, and reconnect with colleagues, mentors and old friends.

We've made networking easy with mingling opportunities like the Expo, the President's Reception, Storm the Hill, technical tours...and much more!

Division Sponsored Technical Sessions

Nuclear Techniques for Material Analysis, Mon. p.m.

Advances in Radiation Detection and Measurement, Tues. p.m.

Isotopes and Radiation: General, Wed. p.m.

Nuclear Data Needs for National Security-Panel, Tues a.m.

University Consortia for Nuclear Nonproliferation Research and Development-Panel, Tues a.m.

November 8-12, 2015

Marriott Wardman Park

Washington, DC

JOINT ANS/NCCAAPM SYMPOSIUM ON THE Mo-99 / Tc-99M CRISIS; THE SCIENTIFIC, TECHNOLOGICAL AND REGULATORY CHALLENGES IN ALTERNATIVE PRODUC-

Millions of diagnostic nuclear medicine imaging studies are performed each year and Technetium-99m is used in 80% of these cases. The US consumes approximately onehalf of the world's supply of Mo-99, but currently has no domestic source. Supply interruptions of Mo-99 would, in many cases, result in patients receiving tests that are less accurate, more costly and have higher doses of radiation. The American Medical Isotopes Production Act (AMIPA) required conversion from HEU to non-HEU Mo-99 production by 2020. Further, it requires a domestic source of Mo-99 be developed. DOE has partnered with US commercial entities since 2009 to accelerate development of non-HEU technologies to produce US based 99Mo. Implementation of the AMIPA may be delayed if there remains insufficient global supply of non-HEU Mo-99 to satisfy domestic use. Companies have increased production and outage reserve capacity in order to maintain a stable supply. This symposium will review the current status of efforts to transition from an HEU supply to a LEU or alternative based supply.

Ongoing Efforts to Support Reliable Supplies of Mo-99 Produced Without HEU Lynne A Fairobent Senior Manager of Government Relations American Association of Physicists in Medicine

SHINE Medical's Progress on Establishing a Reliable, Compatible, U.S. Based Supply of Medical IsotopesGregory PieferCEOSHINE Medical Technologies

Regulatory Challenges Initiating Domestic Production of Mo-99 James T. Harvey Senior Vice President & Chief Science Officer NorthStar Medical Technologies, LLC



American Nuclear Society

NORTH CENTRAL CHAPTER OF THE AMERICAN ASSOCIATION OF PHYSICISTS IN MEDICINE

October 29-30, 2015 <u>Marriott West</u> 1313 John Q Hammons Dr. Middleton, WI

Student Conference 2016 University of Wisconsin–Madison



The 2016 American Nuclear Society Student Conference

Being a Critical Member of the Nuclear Industry

University of Wisconsin Madison

March 31–April 3, 2016

Madison Concourse Hotel

Madison, WI

In a nuclear reactor, a balance of the right conditions is necessary for the reactor to be "critical." As in a nuclear reactor, having a balance of many different qualities is also important for an individual to succeed in the professional world. The nuclear industry encompasses a wide range of professional disciplines ranging from medical physics to reactor design. The theme of our conference, Being a Critical Member of the Nuclear Industry, is modeled after the Four Factor Formula for reactor criticality, $k = \eta$ fpe . We have defined our own "Four Factors" that students will explore at our conference to help them become "critical" members in any aspect of the nuclear industry:

- (η) nuclear opportunities
- (f) forming our public image
- (p) professional development
- (ϵ) entrepreneurship

Each of these factors will be realized through many series of technical sessions, hand-on workshops, panels, and dinners that individually target one of the four factors.

For more information please visit ANSStudentConference2016.com.

Matthew Jasica, Kalin Kiesling, & AJ Gross

ANSStudentConference2016@gmail.com

Conference Phone: (608) 572-7267



2015 AWARD WINNERS



Ashlyn Jones University of Tennessee ajone188@vols.utk.edu



Dr. William Dunn Kansas State University <u>dunn@mne.ksu.edu</u>

VOGT RADIOCHEMISTRY SCHOLARSHIP WINNER

My name is Ashlyn V. Jones, and I am currently a senior at the University of Tennessee, Knoxville. With the help of the Institute for Nuclear Security and the Radiochemistry Center of Excellence at UTK, I have been exposed to nuclear forensics and aspects of radiochemistry. Also, through the Nuclear Chemistry Summer School at Brookhaven National Laboratory, I was introduced to topics of nuclear medicine. Because of this, I plan on continuing my education in radiochemistry.

I plan to graduate from UTK next spring and start my graduate education in the fall of 2016. My current research with the Radiochemistry Center of Excellence includes the synthesis and characterization of the rare-earth metals with organic ligands. I plan to focus my graduate education in the field of nuclear medicine, and I hope to lead this focus to radiopharmaceuticals.

RADIATION SCIENCE AND TECHNOLOGY AWARD WINNER

Dr. Bill Dunn is the recipient of the Radiation Science & Technology Award presented by the IRD Honors and Awards Committee. Dr. Dunn has been active in radiation science and technology for four decades. He began his research in 1969 as a graduate student at North Carolina State University and, in addition to publishing his M.S. and Ph.D. research, also published a paper on a model for tertiary X-ray fluorescence in heterogeneous samples and an IAEA manual on use of radiotracers. Since leaving graduate school, he has worked primarily in nuclear engineering, first as an in-house nuclear engineering consultant for Carolina Power & Light Company and then with three research institutions, Research Triangle Institute, Applied Research Associates, and Quantum Research Services. In 2002, Dr. Dunn returned to academia as an Associate Professor in the Mechanical and Nuclear Engineering (MNE) Department at Kansas State University (KSU), where in 2003 he established the Radiation Measurement Applications Laboratory. Dr. Dunn is now Professor and Department Head in MNE and Steven M. and Kay L. Theede Chair in Engineering. He continues to work in the general areas of radiation applications and Monte Carlo methods.

A MESSAGE FROM THE FIRST BMD YOUNG MEMBERS GROUP LIAISON

I would like to start off by thanking Bryan Bednarz as he played an instrumental role in my being selected as the first BMD Young Members Group Liaison. The primary purpose of this new position is to serve as a conduit for collaboration between the BMD and the ANS Young Members Group.

As a young scientist I know firsthand how challenging it can be to build connections in any professional society. This is especially true for those young ANS members, like myself, who are working in medical and health physics or related fields. I humbly admit that in the past I have had definite feelings of being a "fish out of water" when attending ANS meetings because of how difficult it was to find other members with a similar scientific focus—the BMD is a relatively small constituency within the large sea of attendees. I, therefore, see my new role as a great opportunity to help improve how the BMD welcomes and engages its young members. We are, after all, the future leaders of ANS and our participation is critical for ensuring that the BMD continues to be a relevant body for information exchange.

My first action as the BMD Young Members Group Liaison was to make contact with the leadership of the Young Members Group. My goal is to stay apprised of the meetings and events that the Young Members Group is planning so as to identify opportunities for outreach and collaboration. I will be attending the ANS Young Professionals Congress in November and I look forward to meeting as many of my fellow ANS members as possible. Please contact me if you are a young member seeking opportunities for involvement.

The following is just a little bit about myself for those who may not know me. I graduated in 2013 with a PhD in Nuclear Engineering and Science from Rensselaer Polytechnic Institute. Since graduation I have held a National Research Council postdoctoral fellowship at the National Institute of Standards and Technology where I am currently pursuing research in support of the development of standards for brachytherapy and positron emission tomography. My research, both as a graduate student and postdoctoral associate, has touched on the need to optimize the radiation dose received by patients undergoing medical imaging exams or radiation treatment for cancer, as well as the need to detect and accurately quantify radioactivity inside the body resulting from planned nuclear medicine exposures or accidental contamination during a radiological emergency. In January 2016 I will be joining the Radiation Epidemiology Branch of the National Cancer Institute as a postdoctoral fellow.



Matt Mille BMD Young Members Group Liaison

mmille1@gmail.com

DIVISION VOLUNTEER OPPORTUNITIES

Division Program Committee Chair: The National Program Committee is responsible for the general character of all technical meetings of which the Society is the sponsor or a major co-sponsor, shall solicit and receive technical papers, approve special technical sessions or discussions, and establish standards, schedules, and procedures for selection and presentation at these meetings. A member and an alternate to represent each Professional Division and Technical Group shall be designated by the respective Division or Group Chair for a term not exceeding three (3) years. The member should be the Division or Group Program Committee Chair, while the alternate should be the chair-elect of the Division or Group Program Committee. The alternate shall vote only in the absence of the respective Division or Group Member.

Division Honors and Awards Chair: The Honors and Awards Chair shall administer a program for advancement of qualified candidates in our division to Fellow grade, encourage and assist individuals and groups undertaking to sponsor candidates, and supervise the preparation of diplomas for presentation. The Chair shall also be responsible for establishing and granting other awards described in the procedures in recognition of accomplishments within the field of nuclear science or engineering, or allied fields, and of meritorious service to the Society.

Working Group to Revise ANS Position Statements: The working group will provide recommendations for the revision of Position Statement 28 on Food Irradiation (last updated 2009), Position Statement 30 on U.S. Radioisotope Supply (last updated in 2004), and Position Statement 72 on The Use of Highly Enriched Uranium for the Production of Medical Isotopes (last updated 2005).



Please contact <u>Bryan Bednarz</u> for more information

bbednarz2@wisc.edu

608-262-5225

2016 ANS Annual Meeting

June 12–16, 2016 • New Orleans, LA • Hyatt Regency

Nuclear Power: Leading the Supply of Clean, Carbon Free Energy

CALL FOR PAPERS

Deadlines

SUBMISSION OF SUMMARIES: October 1, 2015–January 8, 2016

AUTHOR NOTIFICATION OF ACCEPTANCE: By February 24, 2016

REVISED SUMMARIES DUE: March 11, 2016

Content

- 1. Introduction: State the purpose of the work.
- 2. Description of the actual work: Must be NEW and SIGNIFICANT.
- 3. Results: Discuss their significance.
- 4. References: If any, must be closely related published works. Minimize the number of references.
- 5. Do not present a bibliographical listing.

Length

- 1. The minimum length is one full page.
- 2. The maximum length is four pages, including references, tables, and figures.
- 3. Limit title to ten words; limit listing authors to three or fewer if possible.

Page Charge

ANS charges \$100 per final printed page (prorated) in the TRANSACTIONS. Authors should be prepared to provide their purchase order numbers when submitting their summaries electronically

Division Technical Program Chairs

Biology and Medicine (BMD) Rolf Zeisler, rolf.zeisler@nist.gov

Isotopes and Radiation (IRD) Kenan Unlu, <u>K-unlu@psu.edu</u>

Template and Guidelines for Transactions

www.ans.org/pubs/transactions

