## ANDREW A. ROONEY, PHD

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## PROFESSIONAL EXPERIENCE

Jun 2012-present Deputy Director

Office of Health Assessment and Translation (OHAT), Division of the National toxicology Program (DNTP),

National Institute of Environmental Health Sciences (NIEHS)

National Institute of Health (NIH)

Oct 2009-Jun 2012 Senior Health Scientist

OHAT, DNTP, NIEHS, NIH

Apr 2009–Aug 2009 Acting Team Leader (Temporary Promotion) – RTP IRIS Team

Integrated Risk Information System (IRIS),

National Center for Environmental Assessment (NCEA),

Office of Research and Development (ORD), US Environmental Protection Agency (US EPA)

Mar 2008–Jun 2008 Acting Team Leader – RTP IRIS Team

IRIS, NCEA, ORD, US EPA

Dec 2003-Mar 2008 Health Scientist

IRIS, NCEA, ORD, US EPA

Nov 2000-Nov 2003 Post-doctoral Fellow

North Carolina State University/US EPA Cooperative Training Program in

Environmental Sciences, Immunotoxicology Branch,

National Health and Environmental Effects Research Laboratory, US EPA

Jan 1999-Oct 2000 Post-doctoral Research Scientist

Université du Québec, Institut national de la recherche scientifique,

INRS-SANTÉ, Pointe-Claire, Québec, Canada

1991-1998 Laboratory Instructor University of Florida, Department of Zoology for:

BSC 2100 – Introductory Biology (Fall 1991, Spring 1992)

ZOO 3713 – F.Vert.Anatomy (Fall 1993, Spring and Fall 1994, Spring 1995) ZOO 3603 – Comp. Chordate Embryology (Spring 1995, Spring 1998)

1990 – 1991 Teaching Assistant Brown University, Biology Department for:

Biology 141 – Behavioral Ecology (Spring 1991) Biology 48 – Evolutionary Biology (Spring 1991) Biology 45 – Animal Behavior (Spring 1990)

## **EDUCATION**

1995-1998 PhD Zoology, University of Florida 1991-1994 MA Zoology, University of Florida 1987-1990 ScB Biology, Brown University

# LEADERSHIP AND MANAGEMENT EXPERIENCE

Deputy Director OHAT, DNTP, NIEHS (4 PhD, 1MA, 1 BA scientists). June 2012 - present. As the Deputy Director I lead projects critical to reaching OHAT goals, provide guidance to staff, and advise senior NTP leadership and the OHAT Director in coordination and implementation of activities necessary to carry out the mission of OHAT and the NTP. I serve a principal role in guiding and mentoring staff to ensure the development of high quality, scientifically sound evaluations (e.g., the folic acid and transgenerational effects projects) to assess the evidence that environmental chemicals adversely affect human health and establishing and maintaining schedules to meet programmatic goals. Key accomplishments: I supported staff while moving development of new OHAT methods forward. I led the group developing systematic review and evidence integration methodology for environmental health assessments, worked closely with the OHAT Director/senior management, served as principal point of communication, and managed input across Federal Agencies and the public. This project resulted in publication of the OHAT framework (Rooney et al., 2014) and I continue to lead the development of new methods such as an approach to address risk of bias for *in vitro* studies, integration of mechanistic data, and incorporation of adverse-outcome-pathways (AOP). These accomplishments led to invited speaker roles to discuss systematic review methods by the NRC, the Karolinska Institute, Federal Agencies, and a senior editor position at the journal of Evidence-based Preclinical Medicine.

Senior Health Scientist OHAT, DNTP, NIEHS. October 2009 – June 2012. As a senior health scientist, I led multiple projects and provided oversight and mentoring for junior staff in support of the OHAT Director in project formulation, coordination and implementation in achieving program goals in conducting literature-based human health evaluations of environmental chemicals. *Key accomplishments:* I led the development, peer-review and release of the NTP Monograph on Health Effects of Low-level Lead which along with the EPA's ISA on Lead has served as a resource for the CDC in implementing recent reductions in the definition of elevated blood lead levels and for California EPA recommendation of reduced occupational exposure limits for lead. I used my expertise in immunotoxicology and risk assessment as a principal author and developer of a framework for immunotoxicity risk assessment in the WHO/IPCS Harmonized Guidance on Immunotoxicity Risk Assessment for Chemicals (WHO/IPCS, 2012), which is the first and only risk assessment guidance on this important area of toxicology. I used my experience in developmental and reproductive toxicology to support OHAT projects such as review of developmental effects on the NTP brief on Soy Infant Formula.

Led and managed the IRIS-RTP Team, NCEA, US EPA. March – June 2008, April – August 2009 (7 PhD scientists), providing direction and oversight to accomplish scientific objectives necessary to meet the program management goals and 5 annual performance measures (APMs) under my leadership. As Team Leader I provided oversight to ensure the overall scientific quality, consistency, and compliance with Agency Guidelines and IRIS Standard Operating Procedures. I assisted the IRIS Program Director in developing staff assignments, evaluating staff performance, and providing strategic input on hiring multiple new staff. *Key accomplishments*: The IRIS-RTP team met 5 annual APMs under my leadership. We started new assessments, brought assessments through internal EPA review, briefed senior management, completed successful peer review, posted a final assessment (Carbon tetrachloride), and 2 more have subsequently been posted (1-4 Dioxane, and Urea). We managed contracts in excess of \$560,000 to develop and support these assessments.

#### INVITED SCIENTIFIC CONSULTATIONS AND PANELIST SERVICE

Invited Panelist and Speaker, Evidence-Based Toxicology Collaboration (EBTC) Workshop on The Emergence of Systematic Review and Related Evidence-Based Approaches in Toxicology, Presentation title "Systematic Review at the NTP Office of Health Assessment and Translation," Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, November 21, 2014

- Invited Speaker for the International Expert Workshop on Systematic Review of Evidence for Chemical Risk Assessment by Royal Society of Chemistry with Lancaster Environment Centre at Lancaster University, London, United Kingdom, November 18, 2014
- Invited Speaker for the 3<sup>rd</sup> International Symposium on Systematic Review and Meta-Analysis of Laboratory Animal Studies, Presentation title "Developing confidence ratings for immune effects data from animal studies of perfluorooctanoic acid (PFOA) or perfluorooctane sulfonate (PFOS) using the OHAT framework," Washington, DC, November 13-14, 2014
- Invited Break-out Group Chair for the NIEHS Workshop for the Development of a Framework for Environmental Health Science Language, Raleigh, NC, September 15-16, 2014
- Invited Systematic Review Expert in support of the draft IRIS Toxicological Review of Inorganic Arsenic, IRIS Bimonthly Public Meeting, Arlington, VA, June 26-27, 2014
- Interviewed for article in *Bloomberg BNA* on EPA's public meeting to discuss scientific issues in the inorganic arsenic assessment, June 2014
- Invited Panelist and Speaker, Society of Toxicology (SOT) Workshop on Exploring Different Approaches to Integrating Evidence from Diverse Data Streams, Presentation title "The OHAT Approach to Evidence Integration for Assessment of Non-Cancer Health Effects," Phoenix, AZ, March 2014
- Interviewed by Carleton University, Ottawa, Canada for a medical update story on current research on lead and potential health effects, January 2014
- Invited Panelist and Speaker, Advancing Risk Assessment of Environmental Agents, Karolinska Institute, Presentation title, "OHAT Approach Steps 5-7: Evaluating the Body of Evidence and Integrating the Evidence," Stockholm, Sweden November 2013
- Interviewed for article in *Consumer Reports* on health impact of low level lead exposure and what people can do to protect their children, January 2012, Story released and re-released September 2013
- Invited National Research Council Expert Panelist and Speaker at the National Research Council (NRC) Workshop on Inorganic Arsenic: Scientific Considerations for Hazard Identification and Dose-Response Analysis, Presentation title "Systematic Review and Evidence Integration for Literature-Based Environmental Health Assessments," Washington, DC, April 4, 2013
- Invited Panelist and Speaker on Systematic Review Methodology, US EPA Public Stakeholder Workshop to Inform EPA's upcoming IRIS Toxicological Review of Inorganic Arsenic, Research Triangle Park, NC, January 8, 2013
- Consulted by the Occupational Hygiene Unit in the Health and Safety Laboratory of the United Kingdom Government for a series of discussions over current evidence for the health effects of low-level lead exposure in May June 2012
- Contacted by *YouBeauty.com* regarding lead content in consumer products like lipstick and the potential health effects of low level lead exposure, May 2012
- Interviewed for article in *Risk Policy Report/Inside the EPA* on systematic review and the analysis program at the National Toxicology Program, December 2012
- Interviewed for article in *Baltimore Sun* on health and the impact of low level lead exposure in the context of the NTP Monograph on Health Effects of Low-level Lead, July 2012

- Invited Participant at the Agency for Toxic Substances and Disease Registry (ATSDR) Science Symposium: Experimental Mixtures Approach, Atlanta, GA, April 11-12, 2012
- Interviewed for article in *Safety + Health* on implications of low level lead exposure for adults today in the context of the NTP Monograph on Health Effects of Low-level Lead, January 2012
- Interviewed for article in *USA TODAY* on health effects of low level lead exposure for the general population in the context of the NTP Monograph on Health Effects of Low-level Lead, November 2011
- Invited Panelist, Environment: A Human Health Perspective; Teacher Professional Development Workshop, NIEHS, Research Triangle Park, NC, August 2011
- Invited Panelist for Career Development Panel, North Carolina Society of Toxicology (NCSOT), Research Triangle Park, NC, October 2010
- Invited Participant in the World Health Organization (WHO)/ International Programme on Chemical Safety (IPCS) Scoping Meeting for the Development of Guidance for Immunotoxicity Risk Assessment for Chemicals, RIVM, Bilthoven, Netherlands, February 28-29, 2008
- Invited Participant Meeting of the Immunotoxicology Workgroup sponsored by the US EPA, ORD, NCEA and Office of Children's Health Protection, National Institute of Environmental Health Sciences/National Toxicology Program and National Institute for Occupational Safety and Health/Health Effects Laboratory Division, Shepherdstown, WV, July 2004
- Invited Participant, US EPA Consultative workshop on Exposure Pathway Biokinetic Models, Research Triangle Park, NC, March 2004
- Invited Participant, National Postdoctoral Association Raleigh-Durham Meeting, Research Triangle Park, NC, November 2003
- Invited Participant, US EPA Endocrine Disruptors Research Program Review Workshop, Research Triangle Park, NC, October 2003
- Invited Participant, New Orleans LA (NOLA) Endocrine Disrupters Workshop, Tulane University, December 1996

#### **INVITED PRESENTATIONS**

- Invited Speaker, Navigation Guide Work Group Meeting, Presentation title "Assessing Risk of Bias in Animal Studies," Webinar, May 14, 2014
- Invited Speaker at the DNTP Trainee Meeting, NIEHS, Presentation title "Research to Risk Assessment: Science and Career Paths," Research Triangle Park, NC, May 2013
- Requested Interagency Presentation by the Department of Defense on OHAT Development of Systematic Review Methods, Presentation title "Draft OHAT Approach for Systematic Review and Evidence Integration for Literature-based Health Assessments Steps 4-7," Webinar, April 16, 2013
- Invited Speaker on Systematic Review at the Federal Summit on Evaluating and Synthesizing Evidence: Applying Systematic Review to Questions of the Health Effects of Chemical Exposures, Presentation title "Integrating the Evidence and Consideration of Biological Plausibility in the draft OHAT Approach," Research Triangle Park, NC, February 27-28, 2013
- Invited Speaker on Problem Formulation at the Federal Summit on Evaluating and Synthesizing Evidence: Applying Systematic Review to Questions of the Health Effects of Chemical Exposures, Presentation title "Lead and Immune Effects: the Impact of Framing the Question and Biological Plausibility on Integrating the Evidence," Research Triangle Park, NC, February 27-28, 2013

Invited Speaker at the NIEHS National Advisory Environmental Health Sciences Council Meeting, Presentation title "Draft NTP Approach for Systematic Review and Evidence Integration for Literature-Based Health Assessments," Research Triangle Park, NC, February 20, 2013

- Requested Interagency Presentation by US Environmental Protection Agency on OHAT Development of Systematic Review Methods, Presentation title "Systematic Review and New Tools of Information Management," Webinar, September 2012
- Invited Platform Presentation and Instructor for Continuing Education Course the WHO/IPCS
  Harmonized Guidance for Immunotoxicity Risk Assessment for Chemicals at the Eurotox 2012
  Meeting, Presentation title "Introduction to the Mercury and Platinum Case Studies," Stockholm,
  Sweden, June 2012
- Invited Webinar Presentation for the Risk Assessment Specialty Section Webinar Series, Presentation title "Immunotoxicity Risk Assessment," April 25, 2012
- Invited Speaker and Group co-Chair, The Navigation Guide Meeting: A Systematic and Transparent Method to Evaluate Environmental Science, Presentation titles "OHAT and Change at the NTP: Incorporation of Systematic Review Approaches" and "Identifying Drivers of Institutional Change," San Francisco, CA, March 9-10, 2012
- Invited Speaker at the NIEHS National Advisory Environmental Health Sciences Council Meeting, Presentation title "NTP Office of Health Assessment and Translation Review of Low-level Lead," Research Triangle Park, NC, February 15, 2012
- Invited Presentation to the Senior Steering Committee Meeting of the Children's Environmental Health Task Force, Presentation title "draft NTP Monograph on Health Effects of Low-level Lead," Webinar, January 19, 2012
- Invited Speaker for Society for Risk Analysis (SRA) Symposium on Graphic Depictions of Toxicological Data, Presentation title "Software for displaying toxicological data at NTP: MetaData Viewer," Charleston, SC, December 2011
- Invited Speaker and Break-out Chair for the World Health Organization (WHO)/ International Programme on Chemical Safety (IPCS) International Workshop on Immunotoxicity Risk Assessment for Chemicals, Presentation title "Introduction to the Platinum Case Study," Bilthoven, Netherlands, October 3-4, 2011
- Invited Speaker for Society for Risk Analysis (SRA) Session on Comprehensive Environmental Assessment of Ethanol: Applying Lessons Learned from the MTBE Experience to Biofuels, Presentation title "Advantages of the Comprehensive Environmental Assessment Approach to Evaluating Trade-Offs Associated with Ethanol and Biofuels" Andrew Rooney and J Michael Davis, Boston, MA, December 2008
- Invited Presentation as part of the Immune System and Immunotoxicology at the US EPA, OPP/HED Training and Certification Program, Presentation title "Current Approaches and Application for Immunotoxicology Risk Assessment, Washington, DC, May 31, 2007
- Invited Session Chair and Platform Presentation for Session on Immunotoxicology and Risk Assessment at Toxicology and Risk Assessment Conference, Presentation title "The use of immunotoxicology data in the integrated risk information system (IRIS) at US EPA," Dayton, OH, April 2005
- Invited Presentation for US EPA/NCEA/IRS program Chemical Managers seminar series, Presentation title "Immunotoxicity Risk Assessment," Washington, DC, May 2004
- Invited Presentation, US EPA National Health and Environmental Effects Research Laboratory (NHEERL) Experimental Toxicology Division (ETD) Work in Progress seminar, Presentation

- title "PTU and developmental immunotoxicity of a thyroid disrupting chemical," Research Triangle Park, NC, October 2003
- Invited Presentation, US EPA/NHEERL/ETD Work in Progress seminar, Presentation title "Immunotoxicity of endocrine-active substances: Should there be concern for functional immune effects after perinatal exposure to atrazine?" Research Triangle Park, NC, April 2002
- Invited Platform Presentation, Centre Inter-universitaire de Recherche en Toxicologie (CIRTOX), Presentation title "Low level cadmium (Cd) exposure through mother's milk produces both short-and long-term effects on NK function and mitogenic response of rat splenocytes and thymocytes. Do metallothioneins play a role?" Montreal, Quebec, May 2000
- Invited Platform Presentation, Crocodilian Biology and Evolution meeting, Presentation title "The effect of extended capture stress on the hypothalamic pituitary adrenal axis in juvenile alligators living in two different lakes in Florida, USA," Brisbane, Australia, July 1998
- Invited Lecture Endocrine modulation of immune function in the American alligator; Santa Fe Community College Zoological Keeper Education Program, March 1997
- Invited Lecture The neuro-immuno-endocrine axis; Santa Fe Community College Zoological Keeper Education Program, February 1996

## SCIENTIFIC JOURNAL SERVICE

#### **Editorial Board:**

Senior Editor and member of Editorial Board for the Journal "Evidence-based Preclinical Medicine," 2014 – present

# At Large Reviewer Service for the Following Journals:

Environmental Toxicology and Chemistry
International Immunopharmacology
Toxicology and Applied Pharmacology
Toxicology In Vitro
Toxicology Letters
Toxicological Sciences
Journal of Immunotoxicology
Journal of Toxicology and Environmental Health
Current Drug Safety

## SCIENTIFIC COMMUNITY SERVICE

- Roundtable Moderator and Author Society of Toxicology (SOT), Session title "Confronting and Overcoming the Barriers to Sharing Toxicological Research Data for Risk Assessment in the 21st Century," San Diego, CA, March 2015
- Sponsored Session at Society of Toxicology (SOT) "Implementing Systematic Review at the NTP,
  Presentation Title "Draft OHAT Approach for Systematic Review and Evidence Integration for
  Literature-based Health Assessments Steps 4-7," San Antonio, TX, March 2013
- Course Co-Chair and Platform Presentation Continuing Education Course on Immunotoxicity Risk Assessment at Society of Toxicology (SOT) for Overview and Application of the WHO/IPCS Harmonized Guidance for Immunotoxicity Risk Assessment for Chemicals, Presentations on "Immunotoxicity Risk Assessment" and "Mercury Immunotoxicity Case Study," San Francisco, CA, March 2012

Invited Poster Session Chair Society of Toxicology (SOT), Session title "Immunotoxicity: Mechanisms," San Francisco, CA, March 2012

- Invited Reviewer for Health Canada on the Chemicals Management Plan Research Fund Proposals, 2011
- Session Co-Chair and Platform Presentation Society of Toxicology (SOT) "Developmental Origins of Adult Disease: The Effects of Low-dose Lead" Presentation title "Contrasting the Developmental and Adult Origins of Adverse Effects from Lead in the draft NTP Monograph on Low-Level Lead," Washington, DC, March 2011
- Session Chair and Platform Presentation Symposia co-chair, Society of Risk Analysis (SRA),
  Presentation title "Comprehensive Environmental Assessment of Ethanol: Applying Lessons
  Learned from MTBE Experience to Biofuels," Boston, MA, December 2008
- Session Chair Symposia co-chair, Society of Toxicology (SOT), Symposia title "Current issues in developmental immunotoxicology," Charlotte, NC, March 2007
- Discussion Leader and Member of Conference Organization Committee US EPA workshop on Challenges to integrating immunotoxicological and microbial risk assessment for susceptible populations and lifestages, Arlington, VA, February 2007
- Group Discussion Lead and Platform Presentation US EPA Scientist to Scientist Meeting on Using Oxidative Stress Research in Human Health Risk Assessment Measurement of oxidative stress. G Hatch, J Gallager, K Kitchin, P Kodavanti, A Rooney, J Royland, B Sen, C Thompson and B Veronesi, October 2006

## National Toxicology Program (NTP) / NIEHS / NIH Service

NTP interagency reviewer on the EPA's Request for clearance on EPA Draft proposed rule and associated RIA titled "Lead-based Paint Program: Amendment to Jurisdiction-Specific Certification and Accreditation Requirements," October 2014

Host for the NIEHS-NTP Inflammation Faculty Seminar speaker, Tomas Guilarte "TSPO in Brian injury and inflammation: a biomarker with therapeutic potential," Research Triangle Park, NC, September 2014

Organizing member and Co-Chair of the NIEHS-NTP Inflammation Faculty, March 2014 – present

Contributor and editor in revising the NIEHS fact sheet on "Lead and Your Health" <a href="http://www.niehs.nih.gov/health/materials/lead\_and\_your\_health\_508.pdf#search=lead">http://www.niehs.nih.gov/health/materials/lead\_and\_your\_health\_508.pdf#search=lead</a>, October 2013

NTP representative to the Advisory Committee on Childhood Lead Poisoning Prevention (ACCLPP) for the Centers for Disease Control and Prevention. Note, ATSDR is currently restructuring the format for advice and considering replacing the ACCLPP with a subcommittee on lead, 2013 – present

NTP interagency reviewer on the EPA's Integrated Urban Air Toxics Report to Congress, January 2013

Member of the NIEHS Cross Divisional Strategic Plan Implementation Committee on Inflammation, October 2012 – present

Annual reviewer and contributor to updating the NIH Biomedical Research Advanced Information Network (BRAIN) database on lead, June 2012 – present

Reviewer and immunotoxicology expert on the NIEHS Technical Evaluation Panel for the Evaluation of Proposals for "Studies to evaluate the Potential for Environmental and Therapeutic Agents to Induce Immunotoxicity," Research Triangle Park, NC, May – October 2013

Rapporteur for NTP Workshop on Role of Environmental Chemicals in the Development of Diabetes and Obesity NTP Center for the Evaluation of Risks to Human Reproduction, NIEHS, Research Triangle Park, NC, January 11-13, 2011

NTP representative on US EPA's IRIS Interagency Review Committee, 2010 – 2012

Member and reviewer for the NTP Office of the Report on Carcinogens (ORoC) Nomination Committee, 2012 – present

Member of the NIEHS Cross Divisional Strategic Plan Implementation Committee on Scientific Data Management and Knowledge Management, October 2012 – present

Member of the NIEHS Cross Divisional Strategic Plan Implementation Committee on Predictive Toxicology, October 2012 – present

Reviewer and Lead subject matter expert for the NIH BRAIN database, 2011 – present

Study design team member of the NTP Toxicological Evaluation of Evening Primrose Oil [CAS No. 90028-66-3], 2010-present

Reviewer for the National Institute of Occupational Safety and Health (NIOSH)-NTP Interagency Agreement (IAG) Immunotoxicology Research Proposals, 2010 – present

# **US Environmental Protection Agency Service**

Systematic review methodology advisor for the Arsenic Assessment Development Team for preparing the draft IRIS Toxicological Review of Inorganic Arsenic, 2013 – present

Primary Reviewer of the IRIS Programs new Internal Review Panel (IRP) to promote a higher standard of quality and resolve policy and scientific considerations in ongoing IRIS Human Health Risk Assessments, December 2008 – September 2009

Member of the US EPA NCEA Phthalate Toxicology and Mode of Action Workgroup, 2008 – 2009

Co-Lead of the US EPA Technical Risk Assessment Panel for the Development of Immunotoxicology Guidelines, 2004-2009

Organizing committee for EPA workshop on Challenges to Integrating Immunotoxicological and Microbial Risk Assessment for Susceptible Populations and Lifestages, February 2007

Postdoctoral Chair of NHEERL Trainee Organization (NTO), November 2002 – November 2003

NIEHS/EPA Biomedical Science and Career Fair, Career Fair Chairperson, June 2002 – May 2003

#### **SOCIETY MEMBERSHIPS**

Society for Risk Analysis (2008 – present)

Society of Toxicology Membership (2003 – present)

Immunotoxicology Specialty Section Membership in the Society of Toxicology (2003 – present) Risk Assessment Specialty Section Membership in the Society of Toxicology (2003 – present) Society of Toxicology Postdoctoral Membership (2003 – 2005)

North Carolina Society of Toxicology Membership (2003 – present)

North Carolina Chapter Society of Quality Assurance Membership (2002 – 2004)

National Health and Environmental Effects Research Laboratory Trainee Org. (2000 – 2003)

American Association for the Advancement of Science (1996 – 2005)

Society of Integrative and Comparative Biology (1995 – 1999)

Sigma Xi (1991 – present)

#### HONORS AND RECOGNITION

NIEHS/DNTP Special Act Award 2014

Recognizing the efforts to publish the article "Systematic Review and Evidence Integration for Literature-Based Environmental Health Science Assessments," which represents a major milestone in the implementation of systematic review

NIEHS/Environmental Factor July 2014 Paper of the Month for "**Rooney AA**, AL Boyles, MS Wolfe, JR Bucher, KA, Thayer. (2014) Systematic Review and Evidence Integration for Literature-Based Environmental Health Science Assessments. Environ Health Perspect **122**: 711-718"

NIEHS/DNTP Quality Step Increase 2012

For outstanding leadership in the development and review of the OHAT Approach to Systematic Review and Evidence Integration

NIEHS/DNTP Achievement Award 2011

For developing and chairing SOT Session on Developmental Origins of Adult Disease: The Effects of Low-dose Lead at Annual Society of Toxicology Meeting

NIEHS/DNTP Performance award 2009, 2010, 2011, 2012, 2013, 2014

NIEHS/DNTP Time-off Award 2013

US EPA Quality Step Increase 2009

In recognition of outstanding performance as Lead Health Scientist from April 2009 to August 2009 for the IRIS-RTP Team

US EPA On the Spot Award and Time-off Award 2008

In recognition of service as Acting Team Leader for the IRIS-RTP Team from March 1 to June 30, 2008 for dedication producing significant impact on members of the IRIS RTP Team leading to making a real difference in the IRIS Program

US EPA On the spot Award 2005

In recognition of organizing and leading a highly successful session-Immunotoxicology Risk Assessment at the 2005 Toxicology and Risk Assessment Conference

US EPA Performance Awards 2004, 2005, 2006, 2007, 2008, 2009

US EPA Time-off Awards 2004, 2005, 2006

Award Recipient as Invited Host for Institute for Tribal Environmental Professionals Summer Intern Program, April 2001 – July 2001

CIRTOX (Centre Interuniversitaire de Recherche en TOXicologie) Outstanding Oral Presentation, Université du Québec á Montréal, Montréal, Québec, May 2000

National Research Grant of Canada, January 1999 – October 2000

Directed CLAS-University of Florida Undergraduate Research Awardees

- Mark Ingese "Effects of endocrine disrupting contaminants on thymus morphology in alligator neonates (*A. mississippiensis*)" Spring 1998 Spring 1999
- Meredith Tsue "The effects of endocrine disrupting contaminants on the clitero-phallus size in the American alligator (*A. mississippiensis*)," Fall 1997 Spring 1998

• Dieldrich Bermudez "Immunological effects of endocrine-disrupting contaminants (EDCs) on alligator (*A. mississippiensis*) spleen morphology," Summer 1997 – Spring 1998

Sigma Xi Grant in Aid of Research, University of Florida, December 1995

Grinter Fellowship, University of Florida, August 1991 – August 1993

James F. Kidwell Research Prize in Population Biology and Genetics, Brown University, 1991

#### **PUBLICATIONS**

## **Peer-reviewed International Guidance Documents**

1. World Health Organization (WHO)/ International Programme on Chemical Safety (IPCS) (2012)
Harmonization Project No. 10. Guidance for Immunotoxicity Risk Assessment for Chemicals.
Available at http://www.inchem.org/documents/harmproj/harmproj/harmproj10.pdf. (Lead author Chapter 3 – the framework for risk assessment, Author of the halogenated platinum case study, contributing author for the mercury and the trichloroethylene case studies)

## **Peer-reviewed National Toxicology Program Documents**

- 2. NTP (2012) Monograph on Health Effects of Low-level Lead for NTP Office of Health Assessment and Translation, National Institute of Environmental Health Sciences, National Institutes of Health, US Department of Health and Human Services, Research Triangle Park, NC. Available at http://ntp.niehs.nih.gov/go/36443. (**Project Lead**)
- 3. NTP (2010) Final CERHR Expert Panel Report on Soy Formula. NTP Center for the Evaluation of Risks to Human Reproduction, National Institute of Environmental Health Sciences, National Institutes of Health, US Department of Health and Human Services, Research Triangle Park, NC. Available at: http://ntp.niehs.nih.gov/go/36476. (Contributor for review and synthesis of reproductive and developmental effects based on the laboratory animal literature)

#### **Peer-reviewed US Environmental Protection Agency Documents**

- 4. US EPA (2011) Toxicological Review of Urea; CAS No. 57-13-6. Office of Research and Development, National Center for Environmental Assessment, Washington, DC; EPA/635/R-10/005F. (Author for significant writing and development of toxicological review)
- 5. US EPA (2011) Toxicological Review of Hexachloroethane; CAS No. 67-72-1. Office of Research and Development, National Center for Environmental Assessment, Washington, DC; EPA/635/R-09/007A. (Contributing author for study selection, nephrotoxicity mode of action evaluation, and general review)
- 6. US EPA (2011) Toxicological Review of Dichloromethane (Methylene Chloride); CAS No. 75-09-2. Office of Research and Development, National Center for Environmental Assessment, Washington, DC; EPA/635/R-10/003A. (Contributing author for development of uncertainty factor argument, mode of action discussion and study description author for immunotoxicity studies)
- 7. US EPA (2010) Toxicological Review of 1,4-Dioxane; CAS No. 123-91-1. Office of Research and Development, National Center for Environmental Assessment, Washington, DC; EPA/635/R-09/005F. (Contributing author for immunotoxicity study evaluation and general review)
- 8. US EPA (2009) Toxicological Review of cis-1,2-Dichloroethylene and trans-1,2-Dichloroethylene; CAS Nos. 156-59-2, 156-60-5, 540-59-0. Office of Research and Development, National Center for Environmental Assessment, Washington, DC; EPA/635/R-09/006. (Contributor and immunotoxicology reviewer and selection of key studies)

9. US EPA (2009) Toxicological Review of Chlordecone (Kepone); CAS No. 143-50-0. Office of Research and Development, National Center for Environmental Assessment, Washington, DC; EPA/635/R-07/004F. (Contributing author for study descriptions of immunotoxicity studies and evaluation of autoimmune-mediated mode of action)

- 10. US EPA (2009) Toxicological Review of Cerium (Stable) and Cerium Compounds; CAS No. 740-45-1. Office of Research and Development, National Center for Environmental Assessment, Washington, DC; EPA/635/R-08/002. (Author for discussion and contributions to development of uncertainty factor argument for alveolar epithelial hyperplasia as the critical effect and review of immunotoxicity studies)
- 11. US EPA (2008) Toxicological Review of Carbon Tetrachloride; CAS No. 56-23-5. Office of Research and Development, National Center for Environmental Assessment, Washington, DC; EPA/635/R-08/005A. (Contributing author for immunotoxicity discussion and review)
- 12. US EPA (2005) Toxicological Review of Toluene; CAS No. 108-88-3. Office of Research and Development, National Center for Environmental Assessment, Washington, DC; EPA/635/R-05/004. (Contributing author for study descriptions of immunotoxicity studies, response to reviewers, and immunotoxicity argument in the database uncertainty factor)
- 13. US EPA (2005) Provisional Peer Reviewed Toxicity Value for Platinum: Derivation of a Provisional Chronic Inhalation Reference Value. Office of Research and Development, National Center for Environmental Assessment, Washington, DC; EPA/600/R-05/045. (Contributing author for study descriptions, selection of key studies, and full uncertainty factor discussion)
- 14. US EPA (2005) Provisional Peer Reviewed Toxicity Value for Cerium: CAS No. 7440-45-1: Derivation of a Provisional Chronic Inhalation Reference Value. Office of Research and Development, National Center for Environmental Assessment, Washington, DC; EPA/600/R-05/046. (Contributing author for study evaluation, selection of key studies, and reviewer)

#### **US EPA Documents in Draft and Review**

- 15. US EPA (2014) Draft Development Materials for the Integrated Risk Information System (IRIS) Toxicological Review of Inorganic Arsenic; CASRN 7440-38-2. Office of Research and Development, National Center for Environmental Assessment, Washington, DC; EPA/630/R-14/101. (Contributing author as Systematic Review Advisor; Lead Author for immunotoxicity mode of action assessment)
- 16. US EPA (2009) Interagency Draft Toxicological Review of Ethyl Tertiary Butyl Ether (ETBE); CAS No. 637-92-3. Office of Research and Development, National Center for Environmental Assessment, Washington, DC; EPA/635/R-08/019. (*Chemical Manager and lead author*)
- 17. US EPA (2009) External Peer Review Draft Toxicological Review of Halogenated Platinum Salts and Platinum Compounds; CAS No. various. Office of Research and Development, National Center for Environmental Assessment, Washington, DC; EPA/635/R-08/018. (*Chemical Manager and lead author*)
- 18. US EPA (2007) Interagency Review Draft Toxicological Review of Copper. Office of Research and Development, National Center for Environmental Assessment, Washington, DC. (*Contributing author for immunotoxicity discussion and mode of action reviewer*)
- 19. US EPA (2008) Agency Review Draft Toxicological Review of Uranium. Office of Research and Development, National Center for Environmental Assessment, Washington, DC. (Contributing author for development of uncertainty factor argument and review of study descriptions of immunotoxicity studies)

#### **Peer-reviewed Journal Publications**

20. **Rooney AA**, AL Boyles, MS Wolfe, JR Bucher, KA, Thayer. (2014) Systematic Review and Evidence Integration for Literature-Based Environmental Health Science Assessments. Environ Health Perspect **122**: 711-718.

- 21. Thayer KA, MS Wolfe, **AA Rooney**, AL Boyles, JR Bucher, LS Birnbaum. (2014) Intersection of Systematic Review Methodology with the NIH Reproducibility Initiative. Environ Health Perspect **122**: A176-A177.
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## **Books and Book Chapters**

- 1. **Rooney AA**, AL Boyles, VR Walker. (2014) Chapter 16: Systematic Review: An illustration of increased transparency in a framework for evaluating immunotoxicity associated with PFOA and PFOS exposure, *In* J DeWitt (ed.) "Health Effects of Perfluorinated Compounds," Springer, New York, NY.
- 2. **Rooney AA**, RW Luebke, MJ Selgrade, DR Germolec. (2012) Chapter 3.9 Immunotoxicology and Its Application in Risk Assessment, *In* A Luch (ed.) "Molecular, Clinical and Environmental Toxicology: Volume 3: Environmental Toxicology." Springer, New York, NY.
- 3. **Rooney AA**. (2005) Reptiles: The research potential of an overlooked taxon in immunotoxicology. In H Tryphonas, M Fournier, BR Blakley, JE Smits and P Brousseau (eds.) "Investigative Immunotoxicology." Taylor and Francis, New York, pp. 107-127.
- 4. **Rooney AA** and LJ Guillette, Jr. (2001) Biotic and Abiotic Factors in Crocodilian Stress: The Challenge of a modern Environment. *In* GC Grigg, F Seebacher and CE Franklin (eds.) "Crocodilian Biology and Evolution." Surrey Beatty and Sons PTY Limited, New South Wales, pp. 214-228.
- 5. Crain DA, **AA Rooney**, EF Orlando and LJ Guillette, Jr. (2000) Endocrine-Disrupting Contaminants and Hormone Dynamics: Lessons from Wildlife. *In* LJ Guillette, Jr. and DA Crain (eds.) "Endocrine Disrupting Contaminants: Evolutionary and Comparative Approaches." Taylor and Francis, New York, pp. 1-21.
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- 7. Guillette LJ, Jr., **AA Rooney**, DA Crain, and EF Orlando. (1999) Steroid Hormones As Biomarkers of Endocrine Disruption in Wildlife, *In* D.S. Henshel, M.C. Black, and M.C. Harrass (eds.) "Environmental Toxicology and Risk Assessment: Standardization of Biomarkers for Endocrine

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- 11. Guillette LJ, Jr., A Cree, and **AA Rooney**. (1995) Biology of Stress: Interactions with reproduction, immunology, and intermediary metabolism, *In* C. Warwick, F.L. Frye, and J.B. Murphy (eds.) "Health and Welfare of Captive Reptiles." Chapman and Hall, New York, pp. 32-81.

## **MENTORING ACTIVITIES**

#### **NIEHS Service**

Served as Mentor/Advisor for NTP Flash Networking session for the DNTP trainees, March 2014

#### **Summer Students**

2001 Summer, Paul Anagale, Institute for Tribal Environmental Professionals Summer Intern Project:

Developmental immunotoxicology resulting from perinatal hypothyroidism

## **Undergraduate Research Experience**

27 students in project-oriented research experiences resulting in 3 publication co-authorships, 5 honors theses, 3 research awards

theses, 3 research awards	
1998 Spring-Spring 1999	Marc Inglese, College of Liberal Arts and Sciences (CLAS)-University of Florida Undergraduate Research Awardee; Honors Thesis: Effects of endocrine disrupting contaminants on thymus morphology in alligator neonates (A. mississippiensis)
1998 Summer-Fall 1998	Satish Degala, Research Experience: histological techniques on reproductive and immune tissue from alligators and field experience in blood collection
1998 Summer-Fall 1998	Kimara March, Research Project: histology of the oviduct of hatchling alligators. A classical measure of estrogenicity applied to a new species
1998 Spring	Debbie Bolt, Research Experience: histological techniques on immune tissues (thymus and spleen)
1997 Summer-Fall 1998	Shiera Gilbert, Honors Thesis: Histology of the juvenile alligator oviduct: developmental and environmental influences
1997 Summer-Spring 1998	Dieldrich Bermudez, CLAS-University of Florida Undergraduate Research Awardee; Senior Thesis: Immunological effects of endocrine-disrupting contaminants (EDCs) on alligator ( <i>A. mississippiensis</i> ) spleen morphology; <i>co-authorship on publication (Rooney et al., 2003)</i>
1997 Summer-Fall 1998	Colleen Kelley, Research Experience: histological techniques on reproductive and immune tissues

1997 Fall-Fall 1998	Hilary Hullard, Honors Thesis: Histology of captive juvenile alligator gonads: developmental effects of maternal exposure to contaminants
1997 Fall-Summer 1998	Kimberly Eschbach, Research Experience: histological techniques on reproductive and immune tissues
1997 Fall-Spring 1998	Meredith Tsue, CLAS-University of Florida Undergraduate Research Awardee; Honors Thesis: The effects of endocrine disrupting contaminants on the clitero-phallus size in the American alligator ( <i>A. mississippiensis</i> )
1997 Summer-Fall 1998	Kristine Owen, Honors Thesis: The effects of estrogenic compounds on gonadal morphology of juvenile American alligators ( <i>A. mississippiensis</i> )
1997 Fall	Elizabeth Fout, Research Experience: histological techniques on reproductive tissue from hatchling alligators
1997 Spring-Fall 1997	Hillary Warren, Research Project: Clitero-phallus development in male and female juvenile alligators from two lakes
1997 Summer	McLane Evans, Research Project (for University of South Florida course credit): Seasonal differences in adult testes morphology of <i>Carretta carretta</i>
1997 Summer	Bobby Lippelman, Research Experience: Radio-immuno assay of steroids in alligator yolk
1997 Summer	Patricia Penha, Research Experience: histological techniques on reproductive tissue
1996 Summer-Fall 1998	Veronica Lye, Research Project: Effects of the environment on thymus morphology in alligators: evidence for immunotoxicology and/or endocrine disruption
1996 Fall-Fall 1998	Leah Garcés, Honors Thesis: Characterization of gut-associated lymphoid tissue of <i>Alligator mississippiensis</i> at Different Stages of Reproduction
1996 Fall-Spring 1997	Andrea Galle, Research Project: Developmental effects of estrogenic compounds: morphometric analysis of alligator Gonads
1996 Spring-Fall 1996	Abe Kim, Research Experience: histological techniques on reproductive tissue from <i>Trachemys scripta</i>
1996 Fall	Tamatha Barbou, Research Project: Activational effects of neonate treatment of Gators
1995 Fall-Fall 1996	Matt Milnes, Research Project: Thyroid alterations associated with exposure to endocrine disrupters during development in the turtle, <i>Trachemys scripta</i> elegans
1995 Fall-Summer 1996	Michael McLean, Research Project: Thyroid alterations associated with exposure to endocrine disrupters during development in the turtle, <i>Trachemys scripta</i> elegans; <i>co-authorship on manuscript in preparation</i>
1995 Spring-Fall 1995	Meyur Dev, Research Experience: histological techniques on reproductive tissue from <i>Carretta carretta</i>
1995 Spring-Fall 1995	Adrian Ariyanayagan, Research Experience: histological techniques on endocrine tissue from <i>T. scripta</i>
1995 Summer-Fall 1995	Michelle Kirby, Research Experience: histological techniques on the thymus of juvenile alligators
1994 Spring	Kevin Carter, Research Project: Thyroid morphology of hatchling alligators from two different lakes
1993 Spring	Karen Scharlette, Research Project: Peptidergic innervation of the oviduct of Sceloporus; acknowledgment in published manuscript (Rooney et al., 1997)

# **REFERENCES**

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Additional references available upon request