Research Tips

University of Colorado
Denver | Anschutz Medical Campus

Vice Chancellor for Research: R.J. Traystman

2/1/2016 | Volume 8 Issue 3

PUBLISHERS TO REQUIRE ORCID IDENTIFIERS FOR AUTHORS

A group of seven publishers today announced that, during 2016, they will begin requiring authors to use an ORCID identifier (ID) during the publication process. The American Geophysical Union (AGU), eLife, EMBO, Hindawi, the Institute of Electrical & Electronics Engineers (IEEE), and the Public Library of Science (PLOS) and AAAS Science will join the Royal Society - which already (as of January 1, 2016) requires its authors to include IDs at submission - in making this commitment.

ORCID IDs are persistent identifiers for people. Using an ORCID ID ensures that researchers can be easily and correctly connected with their research activities, outputs, and affiliations. Over 200 research platforms and workflow systems collect and connect IDs from researchers: grant application and publishing systems, association management systems, and university CRIS and other research information systems.

ORCID http://orcid.org (if the link does not work, please cut/paste the url into your browser address window) is a community-driven non-profit organization that aims to solve the name ambiguity problem in research and scholarly communications. ORCID maintains a central registry of unique identifiers for individual researchers and provides open and transparent processes for connecting ORCID IDs with persistent identifiers for people, organizations, and research activities and outputs. Connecting these identifiers can improve the research and scholarly discovery process, reduce reporting burdens, increase the efficiency of research funding, and support sharing and collaboration within the research community. For more information contact Laurel Haak, ORCID Executive Director, at l.haak@orcid.org.

THINK. CHECK. SUBMIT.

A new cross-industry campaign has recently been launched to help researchers choose where to submit - Think. Check. Submit. The campaign will provide information for researchers, through an online hub at www.thinkchecksubmit.org about the criteria they should look for when selecting where to publish their research.

The volume of research output continues to grow, and recent years have seen an increase in new publishing services and outlets. At the same time, we hear increasing stories of malpractice, or deceptive publishing, but little in the way of guidance exists when it comes to choosing a journal to publish in.

Think. Check. Submit. is a new campaign led by representatives from organizations across the industry: ALPSP, Directory of Open Access Journals (DOAJ), INASP, the International Association of Scientific, Technical and Medical Publishers, ISSN, LIBER, OASPA, UKSG and individual publishers including BioMed Central. The campaign will help researchers understand their options, and key criteria they can check before making an informed decision about where to submit.

DR. Ts CORNER

Third Quarter Sentinel Testing

I am happy to announce that we have completed the Third Quarter Sentinel Testing for RC1, R2, Downtown and Denver Health vivariums. The results show that there are no known excluded pathogens present in our facilities.

As has been reported in previous quarters, we do have norovirus and helicobacter positive colonies throughout the facility. At this point, we are continuing to monitor these agents and currently have no immediate plans to exclude these two agents. We are also continuing our efforts to exclude Corynebacterium bovis from our nude colonies. If you have questions about this effort, please contact Chris Manuel (chris.manuel@ucdenver.edu).

I would like to thank everyone who uses our vivarium. Your efforts have helped us maintain a "clean" facility, which is not only important to the health and welfare of our animals, but also to the generation of outstanding data for our research activities.

Fourth Quarter Sentinel Reports

I am happy to announce that the Office of Laboratory Animal Resources (OLAR) finished the year well, as we have completed and received the results for the Fourth Quarter Sentinel Testing for the RC1, R2, Downtown and Denver Health vivariums. The results show that there are no known excluded pathogens present in our facilities.

As has been reported in previous quarters, we do have norovirus and helicobacter positive colonies through the facility. At this point we are continuing to monitor these agents and currently have no immediate plans to exclude these two agents. We are also continuing our efforts to exclude Corynebacterium bovis (C. bovis) from our nude colonies. If you have questions about this effort, please contact Chris Manuel (Chris.Manuel@ucdenver.edu).

I would like to take this opportunity to thank everyone who works in and/or utilizes the vivariums for their hard work to keep our facilities "clean". Good, reproducible, responsible research depends upon healthy animals and I am very proud of our facilities and the individuals who work so hard to maintain our facilities at the highest level. Thanks to all involved.
Epigenetic complexes engage chromatin to organize chromatin structure. Understanding how epigenetic complexes orchestrate chromatin structure within the nucleus of the cell is challenging. Dr. Xiaojun Ren, an assistant professor in the Department of Chemistry, is looking to change this.

He did not start out in biology! A Chemistry PhD degree was followed by two postdoctoral trainings: one in single-molecule biophysics at the University of Cambridge and another in epigenetics at the HHMI. He wanted to apply state-of-the-art single-molecule biophysics and chemical thinking to questions of fundamental importance in the biomedical field. He is particularly interested in Polycomb Group (PcG) proteins since they play essential roles in maintaining stem cell states, are master regulators during development, and mutations have been linked to cancer.

Xiaojun has developed new single-molecule approaches to look at binding mechanisms of epigenetic complexes on native chromatin. Single-molecule fluorescence microscopy is extremely sensitive and allows absolutely quantifying molecular interactions of epigenetic complexes on chromatin. Recently he developed a novel approach termed single-molecule chromatin immunoprecipitation imaging (Sm-ChiPi). By applying Sm-ChiPi, being the first time, he was able to quantify in vivo assembly stoichiometry of PcG proteins on chromatin. He hopes researchers in the chromatin field are going to apply Sm-ChiPi towards their chromatin-associated complexes.

The Ren laboratory is applying and developing single-molecule approaches to visualize individual epigenetic complexes binding to chromatin with the nucleus of living cells. It is hard to imagine that he can visualize single epigenetic complexes searching for and binding to their targets within living cells. He is dissecting molecular mechanisms underlying dynamics of PcG proteins on chromatin and mapping spatial organization of PcG target genes within living cells by combinations of single-molecule approaches, genetic engineering, and biochemistry. He is very excited that he has gained new insights into functions and molecular mechanisms of PcG proteins.

NEWLY FUNDED and NOW RECRUITING SCHOLARS, Round 1 DUE Feb 26 by noon.

University of Colorado Anschutz Medical Campus School of Medicine Fund to Retain Clinical Scientists (CU-FRCS), a program funded by the Doris Duke Charitable Foundation, 2016-2020

Judy Regensteiner PhD (PI/PD) and Anne Libby PhD (Co-PI/PD)

Abstract: The University of Colorado Anschutz Medical Campus (CU) is the largest academic health center in the Rocky Mountain region. The School of Medicine (SOM) employs 1130 physicians as Instructors or Assistant Professors; approximately 40% (460) are currently funded by internal or external sources for research. Funding gaps are particularly difficult during early career years when funding is essential to establish a research career. Like other research-based medical schools, we are challenged to retain talented early career physician-scientists who face windows of vulnerability-time sensitive, significant life events including caregiving for children, elder care, or personal health issues. At these times, these junior faculty are forced to question the viability of research careers and may choose other career paths such as clinical medicine. An involuntary departure from a research career costs human capital, research potential, and the academy's capacity to improve health by those most prepared to do so. The CU-FRCS will work to retain junior faculty physician scientists who face a window of vulnerability that threatens existing progress. Recipients will be chosen using NIH-style peer review from among individuals who have active financial research support and a clear trajectory to an independent research career. Scholars will receive funds as well as mentoring from the PIs and other master mentors as part of a team mentoring approach. These funds will enable retention of some of the best, brightest, and most dedicated physician scientists as they seek to continue pursuing a research career, enhancing resilience for the present and future.

General Requirements. CU-FRCS Scholars must have the MD or DO degree, an active medical license and currently be a full-time junior faculty member (Instructor or Assistant Professor) at the CU-SOM. Candidates must show strong evidence of commitment to pursuing a career as a clinician-scientist and be doing clinical research that does not include research using animals or primary tissues derived from animals. These guidelines will be observed with Doris Duke and CU-SOM funds. Their research must have the potential to impact human health. Candidates must have a primary mentor(s) with extensive research experience. They must have research support such as a career development award or research project grant. In addition, candidates must show evidence of strong research training and productivity. Candidates must also be able to demonstrate a compelling need for the supplement that is related to being a caregiver; typically this would be childcare and/or eldercare. CU-FRCS Scholars may be either women or men.

Specific Requirements.
1) Excellence of training / Evidence of a high level of scholarship
2) Explanation of the situation causing the window of vulnerability for which the Doris Duke funding will help alleviate. In addition, an explanation of how the funds would be used if awarded. Funds must be used to support research and training.
3) Clarity of the vision of both applicant and mentor as to career goals and commitment to research.
4) Strong letters of recommendation.
5) Clear evidence of career support from the Department Chair/Division Head. Annual CU-FRCS program support of $33,333 per year must include a written commitment of additional sponsorship of an additional $10,000 per year towards project support if their candidate is awarded the CU-FRCS funds.

CONTACT: Program Directors or Rachel Aerne, program assistant Rachel.Aerne@UCDenver.Edu