RNA Society Newsletter Aug 2016

RNA Society

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From the Desk of the President, Sarah Woodson

Greetings to all! I always enjoy attending the



annual meetings of the RNA Society, but this year's meeting in Kyoto was a standout in my opinion. This marked the second time that the RNA meeting has been held in Kyoto as a joint meeting with

the RNA Society of Japan. (The first time was in 2011). Particular thanks go to the local organizers **Mikiko Siomi** and **Tom Suzuki** who took care of many logistical details, and to all of the organizers, **Mikiko, Tom, Utz Fischer, Wendy Gilbert, David Lilley** and **Erik Sontheimer**, for putting together a truly exciting and stimulating scientific program. Of course, the real excitement in the annual RNA meetings comes from all of you who give the talks and present the posters. I always enjoy meeting old friends and colleagues, but the many new participants in this year's meeting particularly encouraged me. (Continued on **p2**)

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Although the graceful city of Kyoto and its cultural treasures beckoned from just beyond the convention hall, the meeting itself held more than enough excitement to keep ones attention! Both the quality and the "polish" of the scientific presentations were outstanding. The meeting opened with three inspiring keynote talks. Shigeyuki Yokoyama (RIKEN) spoke on the structural biology of tRNA synthetases and other protein-RNA complexes important for translation. Rachel Green (Johns Hopkins Medical School) described how translation by the ribosome is coupled to mRNA turnover. Finally, Brent Gravely (University of Connecticut) spoke on the genomics of RNA and RNA-protein interactions. Friday morning brought keynote presentations of new structures of the spliceosome from Yigong Shi (Tsinghua University), Reinhard Lührmann (Max-Planck Institute for Biophysical Chemistry) and Kiyoshi Nagai and Wojciech Galej (MRC Cambridge), chaired by Jon Staley (University of Chicago). The mechanism of pre-mRNA splicing has been an important topic of RNA meetings since their inception. It is thrilling to see the structure of the spliceosome come to life - this is clearly just the start of a new adventure in RNA structure and RNA biology. Tighten your seat belts for more to come!

The meeting ended with the Awards ceremony which honored the winners of poster prizes, the Scaringe Awards, and especially our two members recognized by Lifetime Achievement Awards. Eric Westhof received the RNA Society's Lifetime Achievement in Science award (see p.4) in recognition of his many contributions to our understanding of RNA structure, modeling, and evolution. Eric is a professor at the University of Strasbourg and has been the Director of the Institute of Cellular and Molecular Biology in Strasbourg since 2006. Andrea Barta received the RNA Society award for outstanding Service (see p.6). This is in recognition of her leadership in the development of RNA research and graduate education in Europe, in fostering the participation of women in science, and her service to the RNA Society as a Director and lead organizer of two of our annual meetings.

I am pleased to remind you of several new initiatives that have come together over the past few

months. First, in May 2016, the RNA journal instituted a uniform price for manuscript publication (see p 12) that simplifies the calculation of author fees and facilitates the use of color figures to convey scientific information. I am grateful to Tim Nilsen, Jim McSwiggen, Andrew Feig and our publisher CSHL Press for carrying this through. Second a new funding initiative has been proposed and advertised via Email and posted on the RNA Society web site. Applications are being accepted on a rolling basis for modest funds for "RNA Salons" (see p18-19). Many thanks to Kristian Baker and Üte Wieden-Kothe for spear-heading this initiative. Third, we are pleased to announce the start of RNA Society Early-Career and Mid-Career awards for excellence in RNA research (see p.12). I particularly want to thank **Barbara Golden** for her foresight and efforts to see this initiative come to fruition.

Also be sure to read about plans for the 2018 RNA meeting in Berkeley, California in this newsletter (see p 15). This is a beautiful venue, and efforts are well underway to start planning for a stimulating and engaging conference. Although most of you may know that Berkeley was selected as the venue for 2018, you may not know that the University of North Carolina was also under consideration. As a result of a law currently in effect in the State of North Carolina that discriminates against transgendered persons, the Board of Directors voted against holding the 2018 meeting in North Carolina. In August, I sent a letter to the Governor of North Carolina and the Chancellor of the University of North Carolina explaining this decision on behalf of the Society. You can download the letter here. I wish to personally thank Alain Laederach and his colleagues for developing a compelling plan to hold the meeting at UNC – we hope to be there in the future.

The upcoming year will bring several changes and renewals to the leadership of the RNA Society. First, I warmly congratulate **Juan Valcárcel** (Centre de Regulació Genòmica Barcelona) as our President-Elect, and the newly elected Directors: **Kathleen Hall** (Washington University), **Haruhiko Siomi** (Keio University), and **Christopher Smith** (University of Cambridge). Their terms will begin in January 2017. I am grateful to these individuals



and to all the candidates who stood for election this year for their willingness to serve the Society. Second, our CFO Andrew Feig announced his decision to step down this year, owing to other commitments. The RNA Society is in good financial health, and this is due in no small part to Andrew's sound leadership and guidance. Below, please read about our ongoing search for a new CFO (p 16) as well as a replacement for our retiring Business Development chair, (p16) Maire Osborn. Maire recently decided not to renew her term at the end of 2016, and she, too, will be terribly missed. Third, I am pleased to announce that the Board of Directors has voted to reappoint Jim McSwiggen as the CEO of the RNA Society for the three-year term Jim has done an extraordinary job 2017-2020. running the Society since 2011. His initiative, foresight and energy have been particularly important as the Society sponsors more meetings outside North America.

As my term as President of the RNA Society nears its end, it's a time to reflect on milestones reached and opportunities to come. Last year, the Society held its 20th annual meeting in Madison Wisconsin, along with celebrating its 23rd year as a non-profit scientific society. From these beginnings, the Society has become increasingly international in its reach, and this is a trend that should continue. One reason for the success of the Society has been the on-going support and "ownership" by a core set of senior scientists, who support the meeting with their regular attendance, and by sending their students and postdocs. As the Society expands its reach to new regions of the globe and new topics in RNA biology, one challenge will be to maintain this sense of ownership and active engagement. If the health of the RNA Society is someone else's concern, then it rapidly becomes no one's concern. I encourage all senior members of the Society to stay involved, attend the annual meetings, and stand for elections or volunteer for other committees.

I have had the privilege of being the first President of the Society to serve a two-year term, as a result of a change to the by-laws made by the Board of Directors several years ago. This change has allowed the Board to take a more active role in the Society's affairs and made it easier to pass some of the initiatives mentioned above. I've greatly enjoyed working with Jim McSwiggen, our CEO, Andrew Feig as CFO, Brenda Peculis, as Kristian Baker on membership Secretary, initiatives, Benoit Chabot on meetings, and Maire Osborne, our industry liaison. All of these individuals, plus all the Board members, work very hard to not only keep the Society running, but to improve its services to you, our members. We welcome feedback about how the Society can serve you better. Don't forget to respond to the member surveys, and feel free to send an email to any one of us with your ideas. In January I pass the torch to the Juan, who will be a wise and dedicated leader. The Society is in good hands.

Warm regards to all and see you in Prague,Sarah Woodson(swoodson@jhu.edu)







Highlights of RNA 2016: The 21st Annual Meeting of the RNA Society

2016 RNA Society Lifetime Achievement Award: Eric Westhof Eyes wide open on RNA

Eric Westhof has been a member of the Society and an editor of the RNA Journal since the beginning. He has attended nearly every annual meeting. He has been active in his service to the Society in a variety of roles, including as a Board member (2000/ 2001), as President (2005), and as an organizer in previous meetings, in Madison (2000) and Kyoto (2011). He was awarded the RNA Service award in 2008.



This year, the RNA Society honored Eric Westhof for his many contributions to science with its Lifetime Achievement Award.

Eric began his talk by acknowledging that when he was an organizer of RNA 2011 in Kyoto, his good friend, **Witold Filipowicz** was awarded the Lifetime achievement award. He liked the symmetry of receiving the 2016 Lifetime Achievement as the Society returned to Japan for the second joint meeting with the Japan RNA Society.

Eric then described his story of a man and circumstances. He was born in Brussels; in his youth he moved to Congo. He returned to study in Liège, Belgium and at Regensburg in Germany. After completing his PhD in 1974, Eric went to Madison, Wisconsin, for his postdoc and eventually returned to Europe. His PhD in Biophysics was focused on examining radiation damage to DNA and electron spin resonance of free radicals in irradiated crystals of nucleic acids. He ended up doing a "second little thesis" to examine NMR of nucleosides, which helped him understand the stereochemistry of nucleosides as determined by X-ray crystallography. With this knowledge, he moved to Madison for a postdoctoral experience, working in the laboratory of Muttaiya Sundaralingam, one of the people Eric described as truly influential. Eric said that his time in this lab was critical for moving forward his own professional career, and while he didn't realize it at the time, it also helped him create a new focus. He stayed in Madison from 1977 until 1981, when he returned to Europe at the "Institut de biologie moléculaire et cellulaire du CNRS" in Strasbourg, thanks to an EMBO post-doctoral fellowship, to work with Jean-Pierre Ebel and **Dino Moras** on the structure of yeast tRNA^{Asp}.

Eric's backgroun d in understand ing the structures

The purpose of modelling is insight, not models

of nucleic acids on a chemical and structural level gave him a unique perspective on how bases could interact and what was possible, if not realistic. In 1980, the world did not yet have crystallization robots, synchrotrons, diffractometers down the hall and only the most rudimentary computational methods or graphics systems. The way you visualized nucleic acids was by building ball-andstick models, by hand, so you could really *see* them. Eric paraphrased R. Hamming and stated: "The purpose of modelling is insight, not models". He explained that one of the best ways to understand



how a nucleic acid could fold and how backbones could bend and bases interact was to build them and stare at them. The insight that came from building a model was far more important than the final model. As people began proposing higher order structures for nucleic acids, Eric realized the rules for ribose puckering and pseudorotation really dictated how a base would be able to interact with a partner and that would in turn dictate the structure of a nucleic acid.

In his presentation, Eric stressed the importance of chance happenings, the benefit of being the right person at the right time... sort-of like a protein binding in a complex! While – he mused – "the acorn falls from time to time under the teeth of the blind pig," he strongly believes (and quoted) Louis Pasteur: "chance favors the prepared mind". If you learn with passion now and continue to work hard, then at some stage, later on, what has been learned

"What chemistry allows, biology will use sometimes, somewhere" will turn out to be useful and critical in your research. His example is his own

interactions with the two key scientific personalities in his career: **Muttaiya Sundaralingam** and **François Michel**.

Eric's perspective on nucleic acids structure and his fruitful interactions with François Michel were critical for the next step. Both François and Eric worked on the invariant core of Group I introns. The sequence alignments indicated not only secondary structure but also tertiary contacts; ironically, invariant bases contained no useful information! From secondary structure and covariations, Eric and François could see correlations and determine 3D structures by building models. They modelled the common core structure of the group I intron, which was immediately adopted by the vibrant ribozyme community. Together, they were able to determine exactly which motif touches another part of the molecule in a 3D structure of the catalytic core and, with colleagues, full introns and other catalytic RNAs. The models generated often proved to be highly accurate and were later validated by high-resolution crystal structures. As crystallographic techniques improved, structural resolution (and understanding) increased. While 3.0 Å was excellent in 1985, by 1999 structures at 0.97 Å could be achieved. Along the way, some of Eric's

predictions were confirmed or refined, allowing him to learn even more about base



interactions and conformational changes. Eric summarized this by stating: "What chemistry allows, biology will use sometimes, somewhere".

Somewhere along the line, Eric realized that the three faces of an RNA base can form unique interactions, due to a different chemistry on each side. Not all base pairs involve the typical Watson-Crick interactions and the expected stacking or typical orientation of a base does not always occur. Yet, all of these unique interactions provide information about architectures of RNA molecules. Biology can use or be fooled by "wrong" bases creating a stable interaction, for example a tautomeric G-U base pair. By shifting the tautomeric equilibria – essentially exchanging



protons – a recognizable and fitting geometry is achieved. By using modified bases, allowing tautomers and also ionized nucleobases, translational fidelity is maintained in a ribosome.



Not only are some non-canonical base pairs permitted, in some cases, for example in the ribosome, it is the only way things will work. However, on the other side, the codon-anticodon interactions within the grip of the decoding center of the ribosome can force the base pairs into an alternative structure, leading to translational



infidelity errors. Modified bases are used in biological systems, found in ribosomal tRNAs RNA. and snRNAs and yet, we do not yet fully appreciate why. How does this modification affect the stability of the

base interactions – and ultimately the efficiency of the chemical reaction/biological process? Much work still needs to be done to understand how (and why) modified bases are used in biological systems.

Eric rounded up his presentation with his own modification of a Larson cartoon and a slide of his many collaborators across the globe. He thanked the RNA Society, for the award and for his years of just having fun doing what he enjoys most, while always learning something new and interesting.

At the end of his presentation, we in the audience were treated by seeing a bit of footage from the RNA Society meeting held in Vienna thirteen years ago, where our 2016 Lifetime achievement award winner, Eric Westhof, waltzed elegantly with our 2016 RNA Service award winner, Andrea Barta, dressed in a flowing gown. He is truly a man of many talents, and knows how to select a talented dance partner!

2016 RNA Society Lifetime Service Award: Andrea Barta



Andrea Barta is a professor at Max F. Perutz Laboratories at the Vienna Medical University and University of Vienna, She has been a

very active supporter of the RNA Society and of RNA research more locally, in the RNA community in Vienna. She has previously served as a conference organizer for the annual meeting of the RNA Society, as board member, a meetings committee member and as a poster judge.

Her very visible (and on-going!) service to the Society continues as she is the lead organizer of RNA 2017 in Prague Czech Republic, May 30 to June 3, 2017. With Andrea at the helm, we know to expect a wonderful meeting highlighting many of the city's prominent offerings!



RNA Society Poster Awards at RNA2016

RNA Society Poster Awards were given to the following at RNA2016 : (shown left to right)

Maureen Akinyi University of Helsinki #716: Dysregulation of the autoregulatory feedback mechanism in 65K and 48K minor spliceosome core proteins leads to defects in the cell cycle **Sarah Azoubel Lima** University of California, San Diego 201: Efficient translation promotes polyA tail pruning

Ashley Chin Institut de recherches cliniques de Montréal (IRCM) #515 : *Defining the role of mRNA Localization in Regulating Epithelial Cell Polarity*

Takeshi Chujo Hokkaido University #562 : *An improved cellular RNA extraction method for quantification of NEAT1 architectural long noncoding RNA and an exploratory search for novel architectural RNAs* **Georg Dorn** Institute for Molecular Biology and Biophysics #564 : *High-resolution mapping of protein-RNA*

interactions by crosslinking of segmentally isotope-labelled RNA and LC-MS/MS

Xiaojuan Fan Chinese Academy of Sciences (CAS) #239 : *Extensive translation of circular RNAs driven by* N6-methyladenosine

Yoshitaka Matsuo (not shown) Tohoku University #822 : *Identification of novel factors involved in the primary step to induce ribosome-associated quality control system*



Joseph Parks University of California Santa Cruz #652 : *Single molecule FRET-Rosetta reveals conformational changes in the essential telomerase RNA pseudoknot domain during catalysis*

Madeline Sherlock Yale University #380 : *Biochemical validation of a ligand for* ykkC *orphan riboswitches* **Alexandre Smirnov** University of Strasbourg, CNRS #553 : *An ultraconserved processive endoribonuclease in human mitochondria*

Yuqiu Wang Peking-Tsinghua Center for Life Sciences #297 : An Arabidopsis noncoding RNA mediates control of photomorphogenesis by red light

Monica Wu University of Toronto #697 : The Argonaute VSRA-1 regulates gene expression through multiple small RNA pathways

Mari Yamada (not shown) University of Tokyo #659: Crystal structure of Campylobacter jejuni Cas9 reveals unexpected diversity in the CRISPR-Cas9 systems

Wataru Yokoyama University of Tsukuba # 427: *NML-mediated rRNA base methylation regulates cell proliferation through the p53 pathway*





RNA Society / Scaringe Award

Open to all junior scientists (graduate students and post-docs) worldwide who have made **a significant research contribution to the broad area of RNA**, as evidenced by lead student authorship on published research, not restricted to any journal. Prize: \$500 cash and a trip to the annual meeting.

TWO Graduate Student Awards :



Ryan Flynn Howard Chang Lab, Stanford University School of Medicine For his work on: The genetic and epigenetic functions of long non-coding RNAs

Nian Liu (unable to attend) Tao Pan Lab, University of Chicago For her work on : The biology and mechanism of mRNA/lncRNA modifications.



TWO Post Doctoral Awards :

Basil Greber Nenad Ban Lab, ETH Zurich For his work on : The structure of the mammalian mitochondrial ribosome



Thi Hoang Duong (Kelly) Nguyen Kiyoshi Nagai Lab; MRC Laboratory of Mol. Biology For her work on: The structure of yeast U4/U6.U5 tri-snRNP







RNA Society Junior Scientists Kyoto in Review

Pre-meeting tours to Kiyomizu-dera Temple, Heian Shrine, and Kodai-ji Temple

On Tuesday morning before the meeting, a group of excited (but slightly jet-lagged) junior scientists set out to see the beautiful sights of Kyoto. Despite calling for rain, the day was

balmy and perfect for the excursion.



Gabriel Pratt (UCSD) was interviewed by a news crew at Fushimi Inari Shrine

The group first set off to **Fushimi Inari Shrine** to enjoy the fox sculptures (*kitsune*) and the hike up the mountain. The path was lined with orange *torii*, which made for beautiful pictures. The walk up the path also gave us the opportunity to meet plenty of new faces. After the tour, we ate lunch at a sushi restaurant.



For the afternoon tour, we split into two groups. The first group went to **Heian Shrine** and to **Nanzen-ji**; the second group went to **Kiyomizu-dera** and **Kodai-ji temple**.

The success and organization of the tours was due to the superb planning done by graduate student representative Kaoru Komatsu and his team of volunteers-Hirohide Saito, Sayaka Dantsuji, Moe Yokoshi, Kashida Shunnichi, Shunsuke Wada, Ruriko Nagashima, and Satoshi Matsuura. Thank you everyone!



Junior scientists gather for the tour to Heian Shrine



Career Development Workshop

We hosted two concurrent workshops on Wednesday. Both panels focused on obtaining jobs, but the two panels focused on different geographical areas. The first panel included **Brett Robb, Anastasia Khvorova, Maki Inada,** and **Frank Rigo**. Brett and Frank were able to give some great insights into working and obtaining a job in industry; furthermore, they were able to talk about the similarities and differences between hiring practices at different companies. Anastasia had unique perspectives on working in both industry and academia, while Maki gave excellent advice on how to prepare for a job at a primarily undergraduate institution.

The second panel consisted of **Soo-Chen Cheng, Dalia Daujotyte, Michiel De Hoon, Lukas Paul,** and **Hirohide Saito**. Dalia and Lukas shared their experiences in working for Lexogen, while Soo-Chen, Hirohide, and Michiel gave some perspective on working in academia.



Panelists Brett Robb, Anastasia Khvorova, Maki Inada, and Frank Rigo

Thank you to all of the panel participants- your advice and perspective is very much appreciated, and your support for junior scientist events and for professional development is incredibly impactful.

Finally, we'd like to thank our faculty mentors **Sam Butcher** and **Katrin Karbstein** for keeping us motivated and on track throughout the year. We'd also like to thank **Anna Suetake** and her colleagues at Japan Convention Services for assistance throughout the year and at the conference.

fRNA Society Junior Scientists

W (irRNAscientists

Linked in RNA Society Junior Scientists

Allison Didychuk (Graduate Student Representative, UW-Madison) Kaoru Komatsu (Graduate Student Representative, Kyoto University) Sebastian Markmiller (Postdoc Representative, UCSD) Phil McCown (Postdoc Representative, Purdue University)

Mentor Mentee Lunch RNA 2016 Nancy Greenbaum



The Mentor-Mentee Luncheon has been a significant and well-attended event at the annual RNA Society meeting since it was inaugurated a dozen years ago. For this year's MM Lunch, we had a record participation of more than 660 attendees (out of ~1200 at the meeting), maintaining the same fractional participation (55%) as at other recent meetings. This tells us that RNA society members appreciate this event and are glad to attend it year after year, regardless of location or demographics of meeting participants. There was roughly equal participation of European/North American and Asian mentors and mentees.

The participants – students, postdocs, faculty, industry professionals and research staff – were assigned to tables according to first or second choice discussion topics they had selected upon registration. The eight topics this year were similar to those offered last year, and included *Optimizing your*



postdoctoral application and training experience, Obtaining and succeeding in a faculty position at a research institution, Obtaining and succeeding in a teaching position at a university/college, Networking and negotiating strategies for biotech/industry positions, Deciding between academic and private sector positions, Writing successful fellowships and grant applications, Balancing family and work life at all career stages, and Seeking and optimizing positions as non-faculty academic researchers (staff/core directors/etc.). In contrast to the MM Lunch at the 2011 Kyoto meeting, we did not split up topics further according to geography (*i.e.* we did not create separate tables for those interested in postdoctoral experience or faculty positions in Canada, U.S., South American, Europe, or Asia), but included mentors and mentees spanning the globe for each topic. In fact, every effort was made to include one European/North/South American and one Asian mentor, as well as one male and one female mentor, at each table; mentees were similarly integrated. I think the international flavor was seen as a "plus" at most tables. As in previous years, the first two topics (*Postdoc* and *Faculty at a Research Institution*) were the most popular, but there is a growing fraction of junior scientists interested in the *Biotech* sphere. Jim McSwiggen recruited several additional mentors in the weeks before the meeting to help accommodate the swelling number of mentees interested in this field, but in the future, we will need to find ways to increase this number even further.

The dining room available for this year's event was beautiful but not large enough to accommodate the entire crowd. As a result, the event was split between two days, Wednesday and Thursday, with most topics represented on each day. The good part of this was that tables could be spread out optimally, with less overall noise. However, an unanticipated challenge arose with the offering of lunch-time sponsored scientific sessions overlapping with the MM Lunch, which some MM registrants opted to attend; as a result, several tables found themselves without mentors! Perhaps it will be helpful in the future for the Organizing Committee to notify registrants of all options for lunch-time events at the time of meeting registration.

Two other changes this year included emailing luncheon mentors in advance to remind them of the luncheon and explain the format in addition to printing the assigned topic category on the mentoring luncheon ticket received at registration.

We thank all of the mentors for giving their time to support our junior scientists. I welcome any suggestions for enhancement of this event in the future (<u>nancy.greenbaum@hunter.cuny.edu</u>), and I hope to see everyone at RNA 2017 in Prague!





New Society Initiatives announced this year

Early & Mid-Career Awards

The RNA Society seeks nominations for two new annual awards, to be presented for the first time at the 2017 annual meeting of the RNA Society in Prague.

RNA Society Early Career Award

- Eligible recipients will be within their first 10 years as an independent investigator as of July 1, 2017.
- The award can be for a single important discovery or for an extended portfolio of work.
- The basis for the award must be from independent research conducted in the recipient's laboratory.
- The winner must be a member of the RNA Society and contributions to the RNA Society can factor into the award decision.
- The winner will have the opportunity to give a short talk at the RNA meeting where the award is presented.

RNA Society Mid-Career Award

- Eligible recipients will be within their first 20 years as an independent investigator as of July 1, 2017.
- The award can be for a single important discovery or for an extended portfolio of work.
- The winner must be a member of the RNA Society and contributions to the RNA Society can factor into the award decision.
- The winner will have the opportunity to present a short talk at the RNA meeting where the award is presented.

Nomination materials

Nominators must be a member of the RNA Society and self-nominations are encouraged. Nominations should include a complete CV of the candidate, and a letter of nomination that clearly summarizes and provides an overview of the qualifications of the candidate. In addition, up to three letters of support (optional), and up to three supporting journal articles (optional) may be submitted.

Nominations are due by October 31, 2016. RNA Society members can access the submission instructions here.

Simplified Author Charges for RNA

The RNA Society and Cold Spring Harbor Laboratory Press are pleased to announce <u>changes</u> in the publication charges for the journal, *RNA*, beginning with the May 2016 issue.

Each article will incur a single publication fee—\$1000 for members and \$1500 for non-members. Articles can include an unlimited number of color figures at no additional charge. Articles longer than 12 pages will incur a \$50-per-page surcharge. Surcharges also will be required if substantial text changes are made or color figures replaced after a paper has been accepted for publication.

These changes are intended to make manuscript submission easier and encourage authors to submit papers, for example in cell and structural biology, that make generous use of color figures.



Jr Scientist Corner

Outgoing Junior Scientist Committee Representatives

This year, Sebastian Markmiller, Phil McCown, and Kaoru Komatsu will be retiring from the junior

committee. scientist Kaoru was responsible for the exquisite coordination of the pre-meeting tours at RNA 2016, while Sebastian and Phil were instrumental in planning the Career Development Workshops at both RNA 2015 and RNA 2016. We wish them the very best in their future scientific endeavors, and hope that we will see them at future RNA meetings!



Departing Junior Scientist committee members Sebastian, Phil, and Kaoru

Introducing two new Junior Scientist Committee Representatives Fadi Marayati – Incoming Graduate Student Representative

I am originally from Aleppo, Syria. I received my Bachelor of Science in Biology at the American University of Beirut, Lebanon. In 2012, I moved to North Carolina to study for my Master of Science in Biology at the University of North Carolina – Greensboro. I am currently a 2nd year Ph.D. student in the department of Biology at Wake Forest University where I work at the intersection of RNA Biology and Epigenetics; I focus primarily on the fission yeast MTREC and EJC orthologs and their role in the maturation of meiotic mRNA transcripts during meiosis. As a Junior Scientist Committee member, I plan to continue the society's solid career development efforts and stress the importance of engaging young scientists through social media and online workshops, outside of the time frame of the yearly meeting. I hope that young scientists can gain a strong sense of



inclusion in the society, and can benefit from the career development workshops to see their future in the field from the perspective of academia and industry professionals.

Petra Beznosková – Incoming Postdoc Representative



Petra Beznosková

I am a senior Ph.D. student with over 6 years of training in gene expression studies conducted in the Laboratory of Regulation of Gene Expression at the Institute of Microbiology in Prague under the supervision of Leoš Valášek, Ph.D. My main research focus is on stop codon read-through. Besides my research, I have been involved in promotional and educational events organized by the public relations department of the Institute of Microbiology (events like "Science open for public", "Bring your children to work", etc.). I am now also involved in the European mobility program for young scientists "ERASMUS+" and supervise an intern from the United Kingdom. I envision the Junior Scientists as a community inside the RNA Society that will be a platform for young researchers to actively support each other. As a Junior Scientist Committee member based in a heart of Europe, I would like to emphasize more geopolitical differences in opportunities for young RNA scientists. I am very excited that my hometown will host the RNA Society meeting next year- I look forward to showing you the many beautiful sights Prague has to offer!



Help us build the junior scientist community throughout the year.

Stay connected to your colleagues throughout the year via social media (we're on Facebook, Twitter, and LinkedIn). We encourage discussions and posts- feel free to post your successes (such as recently published papers) and your questions. The Facebook page is public, so we would like to highlight and celebrate RNA science on this page. The LinkedIn group is private, so feel free to post more specific questions, topics, or job postings.

As always, we can also be contacted via email: junior_scientists@rnasociety.org

We welcome your feedback on ideas for next year's conference, how to improve our visibility, and how to better serve the junior scientist community.

RNA Society Junior

facebook



Junior Scientist logo contest deadline extended – until October 1st, 2016

Are you good with Illustrator or have an eye for graphic design? We are looking for a new logo for the RNA Society Junior Scientists. This logo will be used on social media to visually connect our group on different platforms. There will be a \$200 CASH prize to the designer of the best logo! Send your entries to **junior_scientists@rnasociety.org** before October 1st.









From the desk of the CEO Jim McSwiggen

Our annual meeting, RNA 2016, was a great success – as was already affirmed by President



affirmed by President Sarah Woodson and others in this newsletter. That comes as a great relief to me. I began as the RNA Society's CEO in 2011, the year that we held our first meeting in Asia—in the same venue as this year's

meeting. The RNA 2011 meeting was also very successful, but we did encounter some challenges with an earthquake, tsunami and nuclear meltdown just a few months before in the middle of Japan, plus some conference-related challenges in the area of food availability and other headaches. Happily, I believe that this year's meeting both exceeded the high bar set by the 2011 meeting for scientific value, and also corrected the logistical challenges from that earlier meeting. The 2016 conference survey (viewed here) supports this conclusion. The survey responses were generally very positive, although some areas of concern or irritation were noted in comments. I have read every comment, and will look to ways to improve future meetings based on that guidance.

Of course, when I say that we produced a successful meeting, I am mostly referring to the organizers: Mikiko Siomi, Utz Fischer, Wendy Gilbert, David Lilley, Erik Sontheimer, and Tsutomu (Tom) Suzuki. Mikiko and Tom, in particular, put in a great deal of effort into ensuring that the logistical details were correct for the meeting. They worked closely with the Japan Convention Services staff - Izumi Fukaya, Anna Suetake, Ikue Sekiguchi, and others - to raise sponsorship and exhibition funds covering more than a quarter of the total conference expenses, to ensure that the right rooms were available for our sessions, and to ensure that there was enough food and drink while keeping overall costs within budget. All of the organizers did an excellent job of recruiting keynote speakers and chairs, selecting top quality speakers from submitted abstracts, and in making the hard logistical decisions of fitting so many good talks and other activities into so little time. My congratulations to the organizers and all of the other conference volunteers (see the separate thank you, p.20) that made RNA 2016 such a giant success.

Our next meeting, RNA 2017, will be held in Prague, Czech Republic, from May 30th to June 3rd, 2017. The conference web site can be found here. The conference dates are earlier than originally announced, and I want to apologize for any difficulties that might have caused – especially for the organizers of the Nucleic Acids Gordon Research Conference. The change happened at the end of 2015, due to a scheduling conflict with the venue. They had asked us if we could shift our schedule by one or two days in order to accommodate more time needed by another conference for set-up. As an alternative, they offered the May 30 - June 3 dates, which had not been available originally. After consultation with a handful of officers and organizers, we chose the earlier date as the least disruptive and most in keeping with our historical dates. We now find that the dates crowd the Nucleic Acids Gordon Conference dates (June 4 to June 9). We regret the inconvenience that this change has caused.

The RNA Society survives and thrives due to the many volunteers that contribute their time and wisdom to help us achieve our objectives (see also, the separate thank you article on p.20 in this newsletter). You can help us, as well, by volunteering your time and expertise. When we need volunteers we ask, and members are usually willing to answer the call. However, I often worry that we're not casting the net wide enough; that we limit our calls to members who are already familiar to us, and who have volunteered in the past. If you would be interested in volunteering, then please let us know. I will be happy to find an opportunity that meets your skills and interests. At present we have two very important volunteer positions that we are



looking to fill. Please look at the separate announcement (immediately below) describing the open positions for **Chief Financial Officer** and for **Business Development** chair, then consider volunteering to fill one of these important positions. As always, if you have questions or comments about what I have written here – or regarding any other Society business – I will be happy to hear them. You can contact me at ceo@rnasociety.org Jim McSwiggen, CEO

RNA Society Volunteer Positions Available

Chief Financial Officer (CFO)

The RNA Society is seeking a part-time Chief Financial Officer to help set budgetary priorities and to supervise our business activities. The ideal candidate will be a detail-oriented, numbers-driven person with an interest in finding new ways to improve the Society's financial health. Previous budgetary experience is preferred. The position also requires Society membership.

Time commitment: 5-15 hours per month.

Term: 3 years, with the possibility for extension.

Remuneration: this is an unpaid volunteer position; however, the Society does provide a small honorarium of \$3000/year in gratitude for your service.

Travel: The position will require approximately three trips per year, at Society expense, to attend the annual publisher's meeting, the Society's annual conference, and a site visit to a future conference venue.

Chair of Business Development

The RNA Society is seeking a Chair of Business Development to lead efforts to generate more corporate involvement in Society conferences and activities. The ideal candidate will have an outgoing personality, contacts in the business world, and an interest in obtaining more business contacts. Previous business development experience is **not** required—only an interest in learning on the job. The position does not require Society membership, although membership is preferred.

Time commitment: 5-15 hours per month.

Term: 3 years, with the possibility for extension.

Remuneration: this is an unpaid volunteer position, however, the Society does provide a small honorarium of \$3000/year in gratitude for your service.

Travel: The position will require attendance at the Society's annual conference, at Society expense, and possibly one or two other trips per year.

For more details, or to apply, please contact the RNA Society CEO, Jim McSwiggen, at CEO@rnasociety.org.



Chairman of the Meetings Committee Benoit Chabot

The 2016 RNA Society conference in Kyoto (June 27 to July 2), organized in partnership with the Japan RNA Society, was a resounding success, a result of the quality of science presented and the outstanding attributes of



the venue. Under the leadership of **Mikiko Siomi, Erik Sontheimer, David Lilley, Wendy Gilbert, Utz Fischer** and **Tsutomo Suzuki**, we were offered a selection of keynote presentations, session/workshop talks and posters that showcased breakthroughs equaling those that have become characteristic of the RNA field. Additional activities like the Mentor-Mentee lunch, career development workshops and special lunch seminars were highly appreciated by members. Congratulations and many thanks to everybody involved in organizing this memorable event!

In 2017 we will meet in **Prague, Czech Republic, May 30 to June 3.** Please note the change of dates from the ones that were originally posted. The meeting will

be organized by Andrea Barta (lead), Petr Svoboda, Rachel Green, Ronald Micura, Yukihide Tomari and Christopher Lima. The organizing team held their first planning meeting in Kyoto. Their expertise and enthusiasm, as well as the exceptional charm of the city, lead us to anticipate a superlative conference in 2017.

In 2018, the RNA Society meeting will move back to North America. For the first time in its history, the conference will be held in California, more precisely in Berkeley (May 29 to June 2), where the facilities are excellent. **Adrian Ferré-d'Amaré** has keenly accepted the position of lead organizer for this event. Adrian has rightfully pointed out that childcare can be a real impediment for the advancement of the young, and especially women. Accordingly, we will endeavor to offer this service to our members in 2018. While the decision to go to Berkeley was enthusiastic and unanimous, we also gave serious consideration to the University of North Carolina, Chapel Hill as a hosting institution. Despite the attractiveness of the UNC site, it was felt strongly and unanimously that the RNA Society had to take a stand against recent legislation in North Carolina that struck down LGBT-inclusive nondiscrimination ordinances across the state. The RNA Society has sent a letter (which you can download here) of protest to the Governor of the state of North Carolina that explains the negative impact of this law on our consideration of UNC. Our hope is that as the political situation in North Carolina evolves favorably, we may reconsider Chapel Hill as a meeting venue in the near future.

In response to strong attendance at recent European conferences and a demand by members to return to Europe on a regular basis, the meetings committee also decided to return to Europe in 2019. A preliminary investigation of proposed venues has put Dublin and Krakow in contention to host the meeting. A final decision on the location will be a major point of discussion in Prague.

In 2020, we will celebrate the 25th anniversary of the inaugural RNA Society Meeting. No specific location has yet been selected, although several venues have been proposed. We will take into consideration members' opinions, including those expressed on an upcoming polling survey. The 2020 meeting will be another important item for discussion in Prague, and we hope to reach a decision on this venue an unprecedented three years in advance!

Please keep the suggestions coming and feel free to contact me at <u>benoit.chabot@usherbrooke.ca</u>. Benoit Chabot Chair of the Meeting Committee



From the desk of Membership Chair Kristian Baker



In past newsletters, I have described some of the ways an RNA Society membership dues are used to enhance your experience as an RNA Society member.

This summer, I am delighted to announce a <u>new</u> RNA Society membership initiative aimed at supporting your local RNA science-based events.

This initiative - developed alongside Membership Committee member, Dr. Ute Kothe (University of Lethbridge, Alberta, Canada) – was conceived as a way to promote yearlong interactions between RNA researchers with the goal of enhancing

communication and training opportunities in RNA research and advancing the professional development of RNA scientists.

Since countless activities that foster RNA research can be envisioned, it was difficult coming up with a name for our new initiative. One common theme emerged, however, and that is that events should cultivate interaction, engagement and the sharing of knowledge – similar to salons held in 17th and 18th century France. As such, the moniker "**RNA Salon**" was borne.

Below are a few of the criteria that should be considered when applying for support for your **RNA Salon**. For application information and guidelines for eligibility, please contact either Ute (<u>ute.kothe@uleth.ca</u>) or myself (<u>kristian.baker@case.edu</u>).

- Applications must be submitted by a Principal Investigator who is a Full and current member of the RNA Society. Involvement by students/post-doctoral fellows (together with the PI) in the organization of the **RNA Salon** is highly encouraged.
- RNA Salons under direction of that PI must assemble a minimum of 3 times during the academic year.
- RNA Salons should foster interactions amongst geographically localized RNA researchers having diverse scientific backgrounds, experiences and/or interests. Participation by members from multiple laboratories and, where applicable, members from different departments and/or institutions is expected.
- A maximum of \$1,000.00 USD will be available for each **RNA Salon** per year for use in food/beverage, advertising, awards, or invited speaker costs.
- RNA Salon organizers agree to RNA Society policy that every effort will be made to promote ethnic, gender and geographic diversity in those participating in the events.
- All activities that enhance the interaction of RNA researchers will be considered. Activities may include (but are not limited to) RNA Journal Clubs, Seminar Series, Workshops, or Discussion Rounds. Professional Development activities and Women-in-Science events targeted to a community of RNA researchers will also be considered. Don't be afraid to BE CREATIVE!
- ☑ The application deadline for 2016/2017 **RNA Salon** support is October 1st, 2016...so inquire about applying today!

We are excited to launch this new membership initiative for RNA Society members and team up with local/regional RNA groups to promote RNA science. Thank you for being a member of the RNA Society and we look forward to your **RNA Salon** proposal and supporting your RNA science-based event!

Kristian and Ute



Calling all RNA SOCIETY members...

Invitation to apply for \$€¥ support for your local 'RNA Salon'

RNA salon [s<u>a</u>-lawn] - a gathering or assembly of RNA scientists that encourages interaction and the sharing of knowledge

The RNA SOCIETY is pleased to provide financial support for local/regional RNA science-based events.

Our goal is to foster interaction between researchers with diverse expertise/interests in RNA science and promote year-long engagement amongst RNA SOCIETY members (and potential future members)!

For more information and detailed guidelines for applying, please contact Kristian Baker (<u>keb22@case.edu</u>) or Ute Kothe (<u>ute.kothe@uleth.ca</u>).

* Also see previous page for additional details

Thank You, Volunteers

The RNA Society both survives and thrives because of the efforts of many volunteers. We hire out some of our activities (to FASEB, Cold Spring Harbor Press, and others), but the key creative and decision-making activities are done entirely by Society volunteers. In this article, the RNA Society Board would like to acknowledge those efforts for the past year. Please accept our sincere apologies if we've left anyone out.

Committees and Committee Chairs

A variety of committees help the Society carry out its essential functions.

- Andrew Feig is our <u>Chief Financial Officer</u>. He acts as the interface with our business office at FASEB, requests and approves payments for Society expenses, oversees our new investment committee, and generally ensures that we stay on track financially. Unfortunately Andrew is stepping down at the end of this, his fourth, year. We will miss his critical insights and attention to detail.
- Benoit Chabot has been the <u>Meetings Committee Chair</u> for almost two years now. He leads the effort to find the next interesting place to hold our annual meeting, while ensuring that the venue is both workable and affordable. He then works diligently to help build a great team of organizers for the meeting. The focus right now is on 2019 and 2020. He is assisted this year by a meetings committee that includes: Markus Bohnsack, Sam Butcher, Melissa Jurica, Shinichi Nakagawa, Marie Öhman, Renée Schroeder, Mikiko Siomi, Erik Sontheimer, and Brenda Peculis (Secretary, ex officio).
- **Kristian Baker** is the Chair of our <u>Membership Committee</u>. She is working to find more and better ways to serve our membership and to encourage more people to join. She also runs our grants program for small conferences., and she has recently initiated a program with **Ute Kothe** to facilitate communication and training opportunities in RNA research through RNA Clubs or similar associations.
- **Maire Osborn** is the Chair of our <u>Business Development Committee</u>. She is tasked with building better connections between the RNA Society and the RNA business community, to seek financial support from them for our activities, and to encourage their participation in the annual conference.
- The <u>Nominating Committee</u> is appointed by the president each year to search for the best candidates to run for our elected offices of President and Board Members. Most importantly, after identifying such candidates they have to convince them to agree to run for office. This year the job was handled by: **Mark Helm, Marie Öhman, Joaquin Ortega, Tsutomu Suzuki**. An excellent field of candidates was identified and persuaded to run for office.
- The <u>Scaringe Award Committee</u> reviews and selects the winners for the annual RNA Society / Scaringe Award. The committee is composed of **Tim Nilsen**, the Editor-in-Chief of our journal, *RNA*; **Phil Bevilaqua**, as an editor of that journal; and **Adrian Krainer**, serving as the immediate past president of the society.

Conference Organizers

Our annual meetings just keep getting better, in large part due to the tremendous efforts of the volunteers who agree to organize the events. This year's meeting in Kyoto was a great success. The RNA 2017 organizers are now hard at work preparing for next year's conference in Prague.

RNA 2016 Organizers	Mikiko Siomi, Utz Fischer, Wendy Gilbert, David Lilley,
(Kyoto):	Erik Sontheimer, Tsutomu Suzuki
RNA 2017 Organizers	Andrea Barta, Rachel Green, Christopher Lima, Ron
(Prague):	Micura, Petr Svoboda, and Yukihide Tomari

Conference Volunteers

Other volunteers also help with specific projects at the annual meeting.

• Each year the conference organizers rely heavily on the <u>session and workshop chairs</u> to help in selecting abstracts for oral presentations, and then for introducing the session or workshop and ensuring that talks stay on schedule. This year, as always, the session and workshop chairs did an excellent job in these tasks. Thanks to: **Yoseph Barash, Atlanta Cook, Masatoshi Hagiwara, Tetsuro Hirose, Toshifumi Inada, Ailong Ke, Anastasia Khvorova, Adrian Krainer, Ulrike Kutay, Alain Laederach, Reinhard Lührmann, Kazuko Nishikura, Jeff**



Pleiss, Martine Simonelig, Haruhiko Siomi, Jon Staley, Beth Tran, Stephen Vagner, Jorg Vogel, Keqiong Ye, Gene Yeo, and Minoru Yoshida.

- Also each year, the Society awards prizes for the best posters in various categories. Judges constitute an appointed Poster Prize Committee. This year the task of choosing the winning posters was accomplished by a dedicated group of 56 volunteers, and lead by conference organizer Wendy Gilbert. This year's judges were: Minna-Lisa Aenkoe, Yoseph Barash, Peter Boag, Markus Bohnsack, Remy Bordonne, Angela Brooks, Julie Claycomb, Christine Clayton, Jeff Coller, John Conboy, Atlanta Cook, Carl Correll, Kent Duncan, Rupert Fray, Mikko Frilander, Toshinobu Fujiwara, Fatima Gebauer, Sander Granneman, Bobby Hogg, Aaron Hoskins, Torben Jensen, Martin Jinek, Melissa Jurica, Yuji Kageyama, Jeff Kieft, Yohei Kirino, Tomoko Kozu, Alain Laederach, Eric Lecuyer, Sebastian Leidel, Billy Li, Oliver Muhlemann, Dierk Niessing, Marlene Oeffinger, Marie Ohman, Thomas Preiss, Shu-Bing Qian, Stephen Rader, Olivia Rissland, Hirohide Saito, Karissa Sanbonmatsu, Haruhiko Siomi, Katja Straesser, Tokio Tani, Yukihide Tomari, Navtej Toor, Hitomi Tsuiji, Leos Valasek, Juan Valcarcel, Stepanka Vanacova, Nils Walter, Zefeng Wang, David Weinberg, Gene Yeo, Tohru Yoshihisa, and Daniel Zenklusen.
- The Mentor-Mentee Lunch is one of the highlights of the annual conference for many attendees. It's a big job to organize the tables so that people sit in groups according to their topics of interest, then to make sure people find their tables and that the plan actually works out. Thanks to **Nancy Greenbaum** and organizer **Tsutomu Suzuki** for making the lunch a big success.

Junior Scientist Reps & Advisors

The Junior Scientist Reps are graduate students and post-docs who are working diligently to gain a greater voice for junior scientists in the Society. They do all the planning and heavy lifting for junior scientist events at each of the annual meetings, among other things. This year's events were a great success due to their hard work.

e ,	•	•		•
Grad Reps	Allison	n Didych	nuk and Ka	aoru Komatsu
Post-doc Reps	Sebast	tian Mar	rkmiller ar	d Phil McCown
Faculty Advisors	Katrir	ı Karbst	ein and Sa	m Butcher

Newsletter Editor

Our RNA Society Secretary, **Brenda Peculis**, also has been the <u>Newsletter Editor</u> since 2005. Twice a year she sends out reminders for articles to be added to the newsletter, then gently pesters the contributors until they complete their tasks. Finally, she formats the whole thing, adds pictures and quotes, and then sends it out for the rest of us to read.

RNA Journal Editors, Board and Reviewers

What can we say? You all know what editors do, and you also know that it can be a lot of work. Both the contributors' decisions to submit top-quality manuscripts to *RNA*, and the editors' efforts to ensure that accepted manuscripts maintain the highest quality, has resulted in a journal that is highly regarded in the field. It has also made *RNA* a good, consistent source of revenue for the Society.

Editor-in-Chief:	Timothy W. Nilsen
Editors:	Javier F. Caceres, Kathleen Collins, Elena Conti, Adrian R.
	Ferré-D'Amaré, Brenton R. Graveley, Elisa Izaurralde, Daniel
	Kolakofsky, Eric Phizicky, Marina V. Rodnina, Rob Singer, Erik
	Sontheimer, Peter F. Stadler, Gisela Storz, Eric Westhof, and
	John Woolford
Reviews Editor:	Thomas R. Cech
Editorial Board:	John N. Abelson, Sidney Altman, Manuel Ares, David P. Bartel,
	Brenda L. Bass, Philip C. Bevilacqua, Douglas L. Black, Thomas
	Blumenthal, Ronald R. Breaker, Chris Burge, James E.
	Dahlberg, David R. Engelke, Martha J. Fedor, Witold Filipowicz,
	Mariano A. Garcia-Blanco, Christine Guthrie, Matthias W.
	Hentze, Daniel Herschlag, Allan Jacobson, Walter Keller, Adrian



R. Krainer, Alan M. Lambowitz, David M.J. Lilley, Reinhard Lührmann, Thomas Maniatis, James Manley, Lynne E. Maquat, Iain W. Mattaj, William H. McClain, Andrew Newman, Harry F. Noller, Norman R. Pace, Richard A. Padgett, Roy Parker, Marina V. Rodnina, Michael Rosbash, Phillip A. Sharp, Joan A. Steitz, Scott Strobel, David Tollervey, Thomas Tuschl, Olke C. Uhlenbeck, Juan Valcárcel, Alan M. Weiner, Marvin Wickens, James R. Williamson, Sandra L. Wolin, Sarah A. Woodson, Robert Zimmermann

We also thank the roughly 600 scientists who agree to review manuscripts for RNA each year. Their work is essential to maintaining the high quality of published papers in *RNA*.

To all of these volunteers—and to any that we might have missed—we offer our sincere thanks for all that you've done and continue to do for the RNA Society.

Sincerely,

The RNA Society Board of Directors.

Sarah Woodson, President; James McSwiggen, CEO; Juan Valcarcel, President-Elect; Andrew Feig, CFO; Brenda Peculis, Secretary; Board Members Fred Allain, Gloria Culver, Barb Golden, Matthias Hentze, Elizabeth Tran, and Phil Zamore

Reports from recent meetings supported by the Society

Post-Transcriptional Gene Regulation: Mechanisms and Networks March $7^{th} - 11^{th}$, 2016 Orsay, France

The second course on "*Post-Transcriptional Gene Regulation: Mechanisms and Networks*" took place March 7-11, 2016 at Institut Curie in Orsay, France (Organizers: M.C. Daugeron, M. Dutertre and S. Vagner).

This annual course is designed for young researchers, especially PhD students and postdocs that are undertaking a research project on RNA. The first aim is to provide an overview of post-transcriptional gene regulations, including (pre-)mRNA splicing, polyadenylation, stability, translation and recently emerging aspects. The second aim of this course is to provide young researchers with an opportunity to discuss with various experts in the RNA field and to present their projects (poster session). This year, this theoretical course was coordinately organized with the practical course "*iCLIP and Ribosome Profiling from A to Z*" (March 13-19, CRG, Barcelona, Spain).

The course gathered 28 participants from labs in 8 European countries, USA and India. The 17 speakers came from 10 European countries, and covered various aspects, including RNA splicing (G. Biamonti, M. Carmo-Fonseca, E. Eyras, M.H. Stern), decay (T.H. Jensen, O. Mühlemann, G. Stoecklin, S. Vaňáčová), translation (R. Méndez, T. Ohlmann, A. Schwarzer), polyadenylation (S. Danckwardt, R. Méndez), structure (D. Lilley), methylation (G. Rechavi), localization (R. Méndez), back-splicing (J. Kjems), exosomes (N. Meisner-Kober), noncoding RNAs (J. Kjems, S. Vaňáčová), bioinformatics (E. Eyras) and disease (U. Fischer and many talks on cancer).



In addition to lectures and poster sessions, participants attended several workshops (career development, scientific publishing, CRISPR and NGS technologies). The full programme of the course can be found at http://enseignement.curie.fr/en/course/post-transcriptional2016.

The RNA Society provided sponsorship to fund one travel fellowship to Joan Gibert (IMIM, Barcelona, Spain) and two poster awards given to Maria Spletter (MPI, Martinsried, Germany) and Maxim Tollenaere (Novo Nordisk Foundation, Copenhagen, Denmark). We are very grateful to the RNA Society for their support of trainee participation in this course. Pictured left to right – Maria Spletter, Maxim Tollenaere and Joan Gilbert

The third course on "Post-Transcriptional Gene Regulation: Mechanisms and Networks" will be held on March 27-31, 2017 at Institut Curie in Paris, France.



Every year, the RiboWest Conference brings together RNA enthusiasts mostly from western Canada, but also from northwest US and eastern Canada with a special focus on students. The 12th annual installment of this event took place from June 5-8, 2016 and was organized and hosted by the Alberta RNA Training and Research Institute (ARRTI) located at the University of Lethbridge.

While many good traditions were continued, also new elements were explored at the RiboWest Conference this year. Of course, the core of this meeting rests on exciting RNA research presented by the 80 participants in the form of numerous talks and posters. For the first time, the two days of the conference were dedicated to general overarching topics: RNA & Synthetic Biology: New RNA Technologies and RNA in Health & Disease. In accordance with these topics, keynote speaker Dr. Adam Arkin (UC Berkeley, USA) inspired participants with his insights into global control of gene expression by RNA determinants with exciting applications in synthetic biology. Likewise, keynote, Dr. Paul Lasko (McGill Univ., Quebec, Canada) provided an interesting perspective on translational control in the *Drosophila* germ line and its relation to diseases. Last, but not least, invited speaker Dr. Eric Massé (Université de Sherbrooke, Quebec, Canada) represented the east-Canadian RNA community.



In addition to the scientific sessions, the RiboWest Conference 2016 included for the first time a "World Café" where all participants engaged at their tables in passionate discussions on "Innovative Directions of RNA Research". Clearly, this is a format that needs to be further developed, but many participants enjoyed this new way of networking. Also, the conference offered a very fruitful panel discussion on "Collaborations and Funding in Biomedical Research" which obviously met the demands and interests of all participants.

Besides these new elements, the strong student-focus was continued, for example by having two judging panels for the poster presentations, one led by the

students themselves and one by the principal investigators. Also, prior to the conference three students were selected for fellowships to attend the RiboWest Conference. The entire RiboWest community is grateful for the support by the RNA Society who sponsored the fellowships and part of the presentation awards.



Finally, the conference concluded with a dinner in the Galt Museum offering a beautiful view of the sunset over the Oldman River in Lethbridge (- well, for a good part of the participants, the conference actually concluded with the subsequent karaoke night in a close-by bar).

Fellowships - Landon Short (Andrea Gorell lab, UNBC), Ewan McRae (Sean McKenna lab, Univ Manitoba) & Jack Wang (R. Godbout lab, Univ Alberta)

Presentation Awards - Ashley Jarding (S. Zimmerly lab, Univ Calgary) & Justin Vigar (H.-J. Wieden lab, Univ Lethbridge)

Poster Awards – **PI Selection** - Sarah Schultz (U. Kothe lab, Univ Lethbridge), Dominic Czekay (U. Kothe lab, Univ Lethbridge) & Jessica Baedke (U. Kothe lab, Univ Lethbridge)

Poster Awards – Student Selection Graduate: Dylan Girodat (H.-J. Wieden lab, Univ Lethbridge) and Iain George (G. Chua lab, Univ Calgary); Undergraduate: Sarah Schultz (U. Kothe lab, Univ Lethbridge) and Undergraduate: Elijah Dueck (U. Kothe lab, Univ Lethbridge)

Poster Recognition - Enthusiasm: Jalyce Heller (H.-J. Wieden lab, Univ. Lethbridge); Best Design: Taylor Sheahan (H.-J. Wieden lab, Univ Lethbridge); Best Figure: Li Wu (S. Zimmerly lab, Univ Calgary); Postdoctoral: Anne-Sophie Tillault (U. Kothe lab, Univ Lethbridge)

EMBO workshop: RNA structure meets function

June 12th-15th, 2016 Stockholm Archipelago, Sweden

The first workshop on "RNA structure meets function" (organized by Gonçalo Castelo-Branco, Katja Petzold and Alessandra Villa, Karolinska Institutet, Sweden) took place in the Stockholm Archipelago (Sweden) and brought together around 110 participants from all the five continents, from academia and industry world.

John Mattick (Garvan Institute, Australia) and Dinshaw Patel (Sloan Kettering Institute, United States) gave an impressive opening lecture and a unique introduction to "RNA structure-function relationship". All the invited and selected speakers gave exciting talks on large RNA complexes, RNA structure and dynamics, regulatory and non-coding RNAs. Lively discussions took place at the poster sessions and at the evening round tables.

Thanks to the support of the RNA Society, 4 travel scholarships were awarded on a competitive basis to young investigators: Kaveh Daneshvar (Harvard Medical School, United States), Romika



Kumari (University College Cork, Ireland), Jane Katherine Frandsen (The Ohio State University, United States) and Christina Helmling (Johann Wolfgang Goethe University, Germany) - from left to right in photo

2016 Integrative RNA Biology – Special Interest Group July 8th, 2016 Orlando, Florida, USA

The 13th Special Interest Group meeting on Integrative RNA Biology (IRB-SIG) was held July 8, 2015 in Orlando, Florida. The annual meeting is designed to bring together world experts in RNA processing, non-coding RNAs, and computation to discuss recent advances in the integrated view of RNA biology and its relation to human disease.



The IRB-SIG aims to bridge the gap between the different research fields to foster new research ideas for deciphering the regulation of RNA processing. This year we had an exciting line-up of researchers from academia and industry that



covered advances and challenges in long read RNA sequencing (Hagen Tilgner, Weill Cornell), targeting RNAs for therapeutic application (Simon Hualin Xi, Pfizer), the role of RNA binding proteins in RNA processing and protein function (Christine Mayr, Memorial Sloan Kettering), and genome-wide characterizations of the human disease landscape (Olga Troyanskaya, Princeton).

Mainá Bitar, Post-Doctorate at Universidade Federal de Minas Gerais / QIMR Berghofer Institute, Azim Dehghani Amirabad, PhD student at the International Max Planck Research School for Computer Science, and Fahad Ullah, PhD Student at Colorado State University received an RNA Society sponsored travel fellowship to cover their registration



costs.

The RNA Society sponsored poster prize of \$100 was awarded to **Jeffrey Thompson** (pictured with organizer Klemens Hertel) from Casey Greene's Lab at the University of Pennsylvania for "Cross-platform normalization of microarray and RNA-seq data for machine learning applications".

The organizers thank the RNA Society for their generous support of the IRB-SIG 2016.

Gordon Research Seminar on Post-Transcriptional Gene Regulation July 9th & 10th, 2016 Stowe, Vermont, USA

The Gordon Research Seminar (GRS) on Post-Transcriptional Gene Regulation was held July 9-10, 2016 and organized by Melanie Preston (Promega Corp./University of Wisconsin-Madison) and Aimee Jalkanen (Colorado State University).

The GRS is a meeting specifically for early career scientists (*e.g.* graduate students and postdocs) to discuss their work and network with colleagues. The theme of the 2016 GRS was "Discoveries for the Future of RNA Biology". There were 11 research talks selected from submitted abstracts in four main topics: RNA Modifications: From m⁶A to Poly(A), Genome-Wide Coordination of RNA Regulation, Regulatory RNAs and Non-Coding RNAs, and RNA: A Gateway into Disease Therapeutics. Two poster sessions also provided an opportunity for all attendees to present their research. A career panel discussion was also held that highlighted careers in the biotech industry, primarily undergraduate institutions, government, and academia.

Keynote speaker, Jon Lorsch, Ph.D., Director of National Institute of General Medical Sciences (NIGMS) at NIH, spoke about the NIGMS vision to modernize graduate biomedical education to a system that trains students in broad, valuable skills applicable to a range of scientific careers. The talk was followed by stimulating discussion and the exchange of ideas that allowed early career scientists to voice their opinions and ask pertinent questions.

Overall, the meeting fostered an environment for all attendees to hear about and discuss exciting progress in the field of RNA control and to establish valuable connections with their colleagues.

The RNA Society generously supported a portion of the registration fees for the following recipients who gave talks about their work (pictured below, left to right): Rosaura Esteve-Puig (University of California, San-Francisco), Michael Fisher (Rutgers New Jersey Medical Center), Alexandra McCorkindale (Berlin Institute for Medical Systems Biology, Max Delbrück Center for Molecular Medicine), and Carter Takacs (Yale University). Many thanks to the RNA Society for its support!





Gordon Research Conference on Post-transcriptional Gene Regulation: RNA from single molecule to transcriptome July 10th -15th, 2016

Stowe, Vermont, USA

The 2016 Gordon Research Conference on Post-Transcriptional Gene Regulation was the seventh in a biennial series that began in 2004. The 2016 meeting discussed the latest findings on the basic mechanisms that underlie the expression of RNAs after their synthesis by RNA polymerase II.

Approximately 180 scientists, including 40 invited speakers and discussion leaders, several speakers selected from abstracts, and approximately 120 poster presenters, attended the meeting. Presentations examined the multifaceted roles for RNA in growth, development and genetic diseases. There was particular emphasis on processing and localization of



coding and noncoding RNAs, RNA editing and silencing of genes by RNAs, translational control, RNA virus-host interaction, and the role of RNA in neurological and neuromuscular disease. Novel global genomic, bioinformatics, single molecule, structural and cell-based approaches as well as high throughput screening approaches were discussed.

The organizers (Chris Burge and Peter Sarnow) are very grateful to the RNA Society for financial support for a junior scientist (**Ella Hartenian**, UC Berkeley; pictured) to give an oral presentation at the meeting. Poster awards went to: Junjie Guo (Postdoc, Whitehead Institute) and Neelam Sen (Scientist, NICHD).

The next Post-transcriptional Gene Regulation meeting will be at the Stoweflake Center in Stowe, VT in 2018.

FASEB Science Research Conference – Post-transcriptional control of Gene Expression: Mechanisms of RNA Decay July 10th – 15th, 2016 Lisbon, Portugal

Researchers whose work focuses on mRNA stability gathered in beautiful Lisbon, Portugal, this summer for a week of scientific presentations and discussion. This FASEB conference on Post-transcriptional Gene Regulation: mRNA Turnover was the 20th year for this meeting and brought together the world's leaders in both Prokaryotic and Eukaryotic RNA degradation.

This year's meeting had two fantastic keynote lectures from Dr. Chris Lima (Sloan Kettering and HHMI) and Dr. Jorg Vogel (University of Würzburg). This year hosted the largest number of meeting participants, with well over 130 group



leaders, post-docs and graduate students in attendance. Astonishingly, organizers Jeff Coller and Ciaran Codon were successful in orchestrating a win for the Portuguese soccer team in this year's European Cup Final the first night of the meeting – setting the stage for an exciting and celebratory week of science.

The generous support of the RNA Society allowed travel fellowships for a number of junior researchers. Additionally, funds were used to award Yanjie Chao (Vogel lab, University of Würzburg) a poster prize for his work entitled "A 3' UTR

derived small RNA provides the regulatory non-coding arm of the membrane stress response" (pictured).

TREnD – Toronto RNA Enthusiasts' Day August 2nd, 2016 Toronto, Ontario, Canada

On August 2nd, the first annual Toronto RNA Enthusiasts' Day (TREnD) was held at the Peter Gilgan Centre for Research and Learning, Hospital for Sick Children. The Symposium was a student-led and trainee-focused event spearheaded by five graduate students at the University of Toronto: Monica Wu, Ashrut Narula, Miranda Wang (top row, 1st, 3rd & 4th positions), Amanda Charlesworth and Christopher Wedeles (bottom row, 2nd & 3rd positions). With guidance



from faculty advisors, Dr. Julie Claycomb and Dr. Olivia Rissland (bottom row, 1st and 4th positions), the group aimed to take advantage of the vibrant and diverse RNA biology community in the Greater Toronto Area and create a platform that brought together researchers of every level for a day of RNA-related discussions.

The event was very well received, with over 170 RNA enthusiasts in attendance with some travelling from as far as New York and Montreal. The day began with a keynote address given by Dr. Erik Sontheimer (RNA Therapeutics Institute and the Program for Molecular Medicine at the University of Massachusetts Medical School; top row 2nd position) integrating both historical discoveries his lab's recent advances in uncovering new CRISPR/Cas pathways and gene regulatory mechanisms. One of the main aims of TREnD 2016 was to provide an opportunity for trainees across all career stages to



showcase their research, which is why the remainder of the day featured 12 oral presentations from only graduate students and post-docs. Serge Gueroussov (Blencowe lab, Univ. Toronto) took home the prize for best talk of the day. During the lunch break, there was a lively poster session with over 60 poster presenters. The best posters, based on trainees' votes, were awarded to: Christina Chung (Western University), Susanna George (Western Univ.) and Michael Ly (Univ. Toronto). Generous support from the RNA Society provided awards for these outstanding students.

The first of its kind in the region, TREnD 2016 provided trainees with valuable scientific feedback, exposed everyone to new ideas, helped establish new collaborations, and unified the scientific community. Plans are already underway for next year's symposium, and if you can't wait, you can get your monthly dose of RNA biology at the Toronto RNA Club meetings (http://www.torontorna.com). All RNA enthusiasts are welcome!

Upcoming RNA meetings of interest

RNaseH 2016 September 6th – 9th, 2016 Kyoto University, Japan

Organizers: Mitsuhiro Itaya (Keio University), Shigenori Kanaya (Osaka University), Kiyoshi Yasukawa (Kyoto University), Robert Crouch (National Institutes of Health)

The 14th International Meeting will discuss recent progress in our understanding of RNase H and related enzymes as well as practical applications of the research in the fields of biology, biochemistry, and medical chemistry. Since the first RNase H meeting in Hawaii in 1990, this meeting has been held every two years at beautiful locations all over the world.

Registration is now open and fees of 50,000 JPY must be received by August 31, 2016. Please visit <u>http://www.knt-ec.net/2016/rnaseh2016/index.html</u> for more information.

Nucleic Acids and Immunity September 7th – 9th, 2016. Brno, Czech Republic

Organizers: Mary O'Connell & Liam Keegan (CEITEC, Masaryk University, Brno).

Brno, the city of Mendel, will host a conference on Nucleic Acids and Immunity in September. This conference is the first of a series of three, funded by the EU under Framework 7, will focus on building a synergistic relationship between researchers in immunity and nucleic acids. In particular there will be emphasis on RNA as the *epitranscriptome* is a new



emerging field of research. The aim of the conference is to bring together researchers in the fields of immunology, innate immune nucleic acid sensing and enzymatic modification of nucleic acids. There will also be a medical perspective, discussing how the lack of certain modifications leading to aberrant innate immune recognition of nucleic acids results in disease.

Keynote speakers include Jean-Laurent Casanova (Rockefeller University, USA) and Caetano Reis e Sousa (The Francis Crick Institute, UK). Additional invited speakers are Lee Gehrke (USA), Leonie Unterholzner (UK), Michael Jantsch (Austria), Mark Helm (Germany), Mariano Garacia Blanco (USA), Nina Papavasiliou (USA), Reuben Harris (USA), Osamu Takeuchi (Japan), Jan Rehwinkel (UK), Jean Luc Imler (France), Sara Cherry (USA), Gunther Hartmann (Germany) and Drew Weissman (USA).

Two prizes funded by the RNA Society will be given for the best young presenter at the conference. Registration (≤ 250 / academic, ≤ 180 / students) for the conference is open until 31^{st} of August 2016. Please visit the website <u>http://www.nucleic-acids-immunity.ceitec.eu/</u> for more information

1st International Caparica Conference in Splicing –Splicing 2016 September $12^{th} - 14^{th}$, 2016

Nova University of Lisbon, Portugal

Organizers: Jose Luis Capelo (Nova University of Lisbon), Carlos Lodeiro (Nova University of Lisbon).

The I-International Caparica Conference in Splicing –Splicing 2016- will join in a friendly academic environment all of us working or interested in moving to this area of research. The conference will take place in summer in one of the best sea villages from Portugal, the sea village of Caparica (South Lisbon area). We aim you to present your latest results in Splicing (DNA, RNA, Protein) or in related areas, and to join the best researchers in the arena. Please do not hesitate to contact me should you have any suggestion to help us make of this event a remarkable one (<u>ilcapelom@bioscopegroup.org</u>). We have managed a nice package with breakfast, lunch, dinner and coffee breaks included by just $80 \notin$ /night in double shared room (twin). Fee is as low as $250 \notin$ /participant.

Please visit www.splicing2016.com and http://www.aldeiadoscapuchos.pt for more information

10th International Retroviral Nucleocapsid and Assembly Symposium

September 18th -21st, 2016 Montpellier, France

The International Retroviral Nucleocapsid and Assembly Symposium takes place approximately every 2 years. We anticipate that this conference will bring together ~120 scientists from around the world to discuss current state-of-the-art of research on retroviral nucleocapsid protein and its Gag precursor, a polyprotein responsible for viral assembly. Topics will include: [1] the role of the NC domain of Gag in viral RNA sequestration and assembly of HIV-1, [2] interactions of NC with viral and cellular partners, [3] chaperone properties, [4] the impact of biophysical methods, notably high resolution microscopy and NMR on the understanding of these processes, and [5] the development of therapeutic strategies.

For more information on registration and abstract submission, please see the conference web site at http://irncas2016.sciencesconf.org/

RiboClub 2016 September 19th -21st, 2016 Orford, Quebec, Canada

The 17th Annual Meeting of the RiboClub is organized by the Sherbrooke RNA Group and features Keynote presentations by Adrian R. Ferré-D'Amaré (NIH, Bethesda) and Daniel Larson (NIH, Bethesda). The theme for the 2016 RiboClub is "RNA Biodiversity" with concentration on unusual model organisms. In addition, the meeting will include 26 featured



speakers covering different aspects of RNA biology, 22 talks selected from submitted abstracts, and two interactive poster sessions showcasing the work of students and post-docs. Support from the RNA Society will fund travel scholarships that will be awarded to two graduate students on a competitive basis.

For more information about the meeting visit this site <u>www.riboclub.org</u>

Molecular Life of Stem Cells

September 29th – October 1st, 2016 Ljubljana Slovenia

We would like to invite you to participate at upcoming international conference on RNA regulation in stem cells entitled "Molecular Life of Stem Cells" (free of any participation fee) that will take place between 29th September and 1st October 2016 in historic city of Ljubljana, Slovenia. We anticipate that this is the first conference bringing together prominent world scientists in stem cell biology and RNA systems biology, and that the latest insights in RNA regulation and (epi)genomic engineering in stem cells will be highlighted.

The scientific program over two full days will highlight two plenary sessions with 28 internationally renowned invited speakers in stem cell biology and RNA systems biology. Keynote speakers will be Maria Barna, Jacob Hanna, Donal O'Carroll and Nikolaus Rajewsky. In addition to the scientific talks, there will be opportunities for the symposium participants to present their research in two poster sessions, and a number of outstanding abstracts will be selected for a talk. Furthermore the day prior to the conference, a professional workshop aimed at younger scientists will be offered on Python, data mining, scientific writing, and NGS.

There is no fee for participating in this event, however, the deadline for submission of abstracts is August 25th, 2016. More information, including a preliminary schedule and list of the speakers, may be found on the meeting website at www.stemcells2016.org. Please contact Miha Modic (miha.modic@helmholtz-muenchen.de) for further information or in the event you would like assistance with travel and accommodation information.

Eighteenth Annual Rustbelt RNA Meeting – RRM 2016

October 14th & 15th, 2016 Cleveland, Ohio, USA

Co-Chairs: Andrey Krasilnikov (Penn State University) and Jo Ann Wise (Case Western Reserve University) Co-Vice Chairs: Sarath Janga (Indiana University-Purdue University Indianapolis) and Timea Fernandez (Ball State University)

The Eighteenth annual Rustbelt RNA conference (RRM), encompassing all aspects of RNA Science, will be held October 14th and 15th, 2016, at the Cleveland Marriott Downtown in Cleveland, Ohio.

The primary mission of the RRM is to provide a showcase for research performed by undergraduate, graduate and postdoctoral trainees. For the 2016 meeting, the organizers will continue the long-standing tradition of selecting abstracts submitted by these junior scientists for oral presentation; the work of other trainees and additional attendees will be highlighted at a poster session. Presentation topics will include pre-mRNA processing, translational control, non-coding and catalytic RNA structure-function, RNA-protein interactions, and global analysis of gene expression.

This year's keynote lecturer will be Professor Melissa Moore of University of Massachusetts and HHMI, a pioneer in multiple aspects of RNA science including her work on the structure and function of dynamic RNA-protein complexes.

Registration is scheduled to open on August 15 at the meeting website, www.rustbeltrna.org. This major NSF-funded regional meeting is limited to 300 participants and has been fully subscribed in recent years, so early registration is recommended!



2016 IMB Conference on "Epigenetics in Development"

October 20th – 22nd, 2016 Institute of Molecular Biology (IMB), Mainz, Germany

The IMB Conference organized by Bradley Cairns (Huntsman Cancer Institute, Salt Lake City, USA) and René Ketting, Jean-Yves Roignant & Natalia Soshnikova (IMB, Mainz, DE) will cover the role of **epigenetics in developmental processes** from the level of individual cells to whole organisms. A central theme of the conference will be to explore how the epigenomic landscape changes between fertilisation and differentiation, what regulates these changes and what is their developmental significance. Included in this is how epigenetics contributes to developmental patterning. For example, what epigenetic regulators are important in lineage specification, how do they exert their function and how do cell-cell interactions transmit signals to the epigenome. The contribution of, for example, DNA modifications and chromatin structure as well as small and long non-coding RNAs to developmental processes will be addressed.

The contribution of chromatin structure to developmental processes and the molecular mechanisms that regulate these changes will also be addressed.

Keynote speakers include Elaine Fuchs (Rockefeller University, New York, USA) and Magdalena Zernicka-Goetz (University of Cambridge, UK). Additional invited speaker include Julie Ahringer (UK), Deborah Bourc'his (FR), Denis Duboule (CH), Antonio Giraldez (USA), Rudolf Grosschedl (DE), Edith Heard (FR), Rudolf Jaenisch (USA), Ben Lehner (ES), Matt Lorincz (CA), Todd Macfarlan (USA), Antoine Peters (CH), Gidi Rechavi (IL), Paolo Sassone-Corsi (USA), Susan Strome (USA), Azim Surani (UK), Vijay Tiwari (DE), Maria-Elena Torres-Padilla (FR), Didier Trono (CH)

This conference will be a unique opportunity for participants to learn about the latest discoveries, talk about their own findings and initiate research partnerships. As well as scientific sessions, there will be many networking opportunities, including poster sessions, a conference dinner and an excursion in the region.

Abstract deadline for short talks and posters: **2 September 2016** Registration deadline: **23 September 2016** For more information and registration, please visit: <u>www.imb.de/2016conference</u>

Bermuda Principles – Impact on Splicing 2016 November 8th -11th, 2016 Southampton, Bermuda

Organizers: Carika Weldon (De Montfort University), Ian Eperon (University of Leicester), Cyril Dominguez (University of Leicester) and Isabelle Behm-Ansmant (CNRS-University of Lorraine)

The 2016 Bermuda Principles Impact on Splicing Conference will take place on November 8-10, 2016 at the Fairmont Southampton Princess Hotel in the exotic holiday island of Bermuda. We are offering an exciting conference where the venue serves as the meeting space and accommodation. This conference is acknowledging the 20th anniversary of the Bermuda Principles, a document created in Bermuda exactly 20 years ago that stated that all gene sequences would be made public in order to further scientific progress in all fields. Such data sharing has indeed advanced scientific research, including the field of splicing.

We encourage young, middle and late career researchers to attend and participate, intending that this gathering will foster fruitful collaborations, inspire novel approaches to tackle existing problems and promote the great work that is going on in the field. Come and enjoy sunshine and seven exciting sessions of splicing.

We are glad to announce that with the support of the RNA Society we are able to offer travel fellowships for early-career researchers (PhD and post-docs) for those who otherwise would not be able to attend the meeting for financial reasons. Please visit http://bermudaprinciples.org/travelfellowships.html for fellowship information.

Registration and abstract submission deadline: September 19, 2016 (ADT). More information can be found at the meeting website - <u>http://bermudaprinciples.org/</u>



Zing Conference: Phase Separation and RNA Processing as Drivers of Cancer and Neurodegenerative Disease February 24th -27th, 2017 San Diego, CA, USA

This new meeting, organized by Aaron Hoskins and Jeff Toretsky will explore the interfaces between RNA processing, formation of sub-cellular compartments by proteins with intrinsically disordered domains, and disease. We are planning an exciting and fun meeting that brings together biochemists, biophysicists, and medical scientists to explore challenges and opportunities in these areas. We are particularly focused on encouraging participation by students and postdocs, and promoting their interactions with scientific leaders.

The conference will kickoff with a set of talks from Roy Parker (U. Colorado-Boulder), Cliff Brangwynne (Princeton), and Adrian Krainer (CSHL). This will be followed by a number of cross-disciplinary sessions including the role of RNA processing in disease, modulation of RNA processing with drugs, forces that underlie phase separation, the biophysics of cancer and neurodegeneration, and new approaches for studying intrinsically disordered proteins and their assemblies.

Other invited speakers include Susan Ackerman (UCSD), Doug Black (UCLA), Silvia Buonamici (H3 Biomedicine, Inc), Dawn Chandler (Nationwide Children's Hospital), Randy Goldsmith (UW-Madison), Melissa Jurica (UCSC), Tanja Mittag (St. Jude Children's Research Hospital), Rohit Pappu (WUSTL), Robin Reed (Harvard Medical School), and Paul Taylor (St. Jude Children's Research Hospital).

In addition to a poster session, we will also select talks from submitted abstracts to provide opportunities for students, postdocs, and early career scientists to present their research.

Registration deadline is February 15th, 2017 (August 31st, 2016 for "Earlybird" pricing). To be considered for a talk, abstracts must be submitted by November 12th, 2016 and poster abstracts are due December 12th, 2016. More information can be found by contacting the organizers (<u>ahoskins@wisc.edu</u>, <u>jat42@georgetown.edu</u>) or at the Zing Conference website <u>http://www.zingconferences.com/conferences/cancer-neurodegenerative-disease/</u>

Employment Opportunities

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Postdoctoral Position in Bacterial RNA Biology at Uppsala University

Posted on August 23, 2016

A postdoctoral position is available in the laboratory of Erik Holmqvist at Uppsala University in Sweden to study post-transcriptional gene regulation by bacterial RNA binding proteins and small RNAs in the context of host cell infection. We combine molecular biology, biochemistry, and genome-wide analyses such as CLIP-seq and RNA-seq to investigate molecular mechanisms and their consequences for bacterial physiology and virulence.

We are looking for a highly motivated, bright and enthusiastic candidate with a background in RNA biology, infection biology and/or molecular microbiology. The candidate should be able to work as a team member, learn new skills rapidly, and have excellent communication skills. The applicant must have received his/her PhD degree from a non-Swedish institution within the last 5 years. The Department of Cell and Molecular Biology at Uppsala University, Sweden, consists of seven different research programs. Research focuses on the chemical, molecular and structural backgrounds of cellular processes. Several laboratories at the department are also centres of excellence: Structural Biology, Molecular Biophysics, Protein Synthesis, and Uppsala RNA Research Centre. Please send your application (in English language) including a CV, a short summary of academic records and research interests, and at least two letters of recommendation (or contact details of potential referees) to erik.holmqvist@icm.uu.se Anticipated start date: October/November 2016. Salary according to EMBO standard.



Tenure-track Biochemistry Faculty Member at the Assistant Professor Level

Posted on August 23, 2016

The Department of Chemistry and Biochemistry at the University of Oregon invites applications for a tenure-track Biochemistry faculty member at the Assistant Professor level to begin in Fall 2017 or later. Biochemistry research at the University of Oregon takes place in the Institute of Molecular Biology (molbio.uoregon.edu), which promotes interdisciplinary interactions between life science researchers in the departments of Chemistry and Biochemistry, Biology and Physics.

We seek applicants from all areas of molecular biology who are using advanced approaches to study mechanisms of cellular function, including topics in RNA biochemistry. A Ph.D. is required. New faculty will join a rich and collaborative atmosphere with existing strengths in host-pathogen interactions, stem cell biology, organelle biogenesis, genome function, and cytoskeleton biochemistry. Successful candidates will have the potential for establishing an outstanding independent research program and excellence in teaching at the undergraduate and graduate levels. They will also support and enhance a diverse learning and working environment. To assure full consideration, application materials should be received by October 10, 2016. Please apply at

https://academicjobsonline.org/ajo/jobs/7667 and upload a cover letter, curriculum vitae, a statement of research plans and objectives, and a brief statement of teaching philosophy or interests. The candidate should also arrange for three letters of recommendation to be uploaded directly by the recommenders. Review of application materials will continue until the position is filled.

The University of Oregon is an equal opportunity, affirmative action institution committed to cultural diversity and compliance with the ADA. The University encourages all qualified individuals to apply, and does not discriminate on the basis of any protected status, including veteran and disability status.

TENURE-TRACK OR TENURE-ELIGIBLE POSITION IN THE LABORATORY OF MOLECULAR BIOLOGY

Posted on August 23, 2016

National Institute of Diabetes and Digestive and Kidney Diseases

National Institutes of Health

Department of Health and Human Services

A tenure track or tenure-eligible position is available for an individual who is interested in developing an independent research program, or has a demonstrated track record of research excellence, in an area of modern mechanistic molecular biology. Current research in this laboratory includes such diverse areas as chromatin-based gene regulation, DNA recombination and repair, bacterial cell division, muscle development, protein trafficking, and structural biology in a wide spectrum of systems.

The laboratory is located on the main campus of the NIH in Bethesda, Maryland, just outside of Washington, DC. This Laboratory (<u>http://www.niddk.nih.gov/research-funding/at-niddk/labs-branches/LMB/Pages/about.aspx</u>) is part of the intramural program of the National Institute of Diabetes and Digestive and Kidney Diseases (<u>http://www.niddk.nih.gov/research-funding/at-niddk/labs-branches/Pages/default.aspx</u>) and provides a highly interactive environment with expertise in molecular, cellular, biochemical and biophysical techniques. NIDDK supports a wide range of basic biomedical research, including several state of the art core facilities. The NIH intramural research program offers many advantages, including stable funding, the ability to do high risk research, and access where desired to clinical collaborators.

Applicants must have a Ph.D., M.D., or equivalent doctoral degree and have demonstrated expertise and a record of achievement. Applicants may be U.S. citizens, resident aliens, or non-resident aliens with, or eligible to obtain, a valid employment-authorization visa. Interested applicants should submit a Curriculum Vitae and list of publications, copies of no more than 5 publications, and a separate document that combines a summary of graduate and postdoctoral research accomplishments with a plan for future research. Senior applicants should also mention independent research accomplishments. Numerical indices such as impact factors or citation numbers will not be taken into consideration, and should not be included in the application. Applicants should also have three letters of reference submitted. All material should be emailed as pdf files to: Dr. Gisela Storz, Chair, Laboratory of Molecular Biology Search Committee

C/O Linda Robinson

LindaR@intra.niddk.nih.gov

The review of applications will begin on or around September 1, 2016. Applications will be accepted until the position is filled. Salary and benefits are commensurate with the experience of the applicant.

DHHS, NIH, and NIDDK ARE EQUAL OPPORTUNITY EMPLOYERS

Georgetown University School of Medicine Full-time, Tenure-track Faculty Position

Posted on August 23, 2016

Georgetown University School of Medicine, Department of Oncology invites highly qualified applications for a full-time, tenure-track faculty position with competitive salary, spacious research facilities, and substantial start-up funds.

Applicants are expected to conduct basic research in oncology and develop independent research programs supported by peerreviewed grant funding. Participation in teaching for the School of Medicine and the Tumor Biology graduate program are required but percent effort for teaching will be adjusted based on the productivity and funding level of the investigator. The faculty member is



expected to demonstrate scholarly activities by engaging in leadership of services beneficial to the Department, University, and the scientific community.

All applicants must have a M.D. or Ph.D. degree (or equivalent) and at least three years of postdoctoral experience. The area of research should complement existing departmental strengths in cancer biology including transcription regulation, splicing mechanisms, signal transduction, protein biochemistry, and molecular mechanisms of metastasis. Preference will be given to candidates interested and able to investigate small molecule-protein interactions for therapeutic development. Interest in sarcoma, leukemia and brain tumor models is important but not required.

Evidence of past high quality research is required. The candidate needs to show potential for extramural funding and publication in scientific journals. Clinical practice is possible and negotiable, but not required for M.D. candidates. Absolute clear and protected research time will be provided in the case of clinical practice. Salary will be commensurate with education, experience and established School of Medicine guidelines.

Effective Date of Appointment: After January 1, 2017, as late as June 30, 2017.

Application Deadline: October 1, 2016 or until filled.

Applicants should submit (i) curriculum vitae, (ii) description of research, (iii) teaching interests, and (iv) arrange to have at least three letters of reference sent to (email is preferred):

Jeffrey A. Toretsky, M.D. Professor Department of Oncology and Pediatrics Lombardi Comprehensive Cancer Center Georgetown University 3970 Reservoir Rd, NW New Research Building, Room E316 Washington, DC 20007 Email: sarcomalab@georgetown.edu

Post-doctoral Position at Rice University

Posted on August 15, 2016

A post-doctoral position is available immediately in the laboratory of Dr. Ed Nikonowicz in the BioSciences Department at Rice University in Houston, Texas. The initial appointment is for one year and can be extended for additional years. The project involves structural and functional studies of RNA-mediated gene regulation with an emphasis on understanding the contributions of select tRNA nucleobase modifications to gene activity and cell fitness. An interdisciplanry approach utilizing genetic and biophysical methods will be used to correlate in vitro and in vivo measurements.

The applicant should have a PhD in Biochemistry, Microbiology, or related field, good quantitative skills, and expertise in molecular and biophysical techniques. A strong interest in RNA research is required. Rice University is located adjacent to the Texas Medical Center, home to several research institutions including UT Medical School, Baylor College of Medicine, and MD Anderson Cancer Center.

To apply, please submit a CV and provide the names of two references to edn@rice.edu.

Rice University is committed to affirmative action and equal opportunity in education and employment. Rice does not discriminate on the basis of race, color, religion, sex, sexual orientation, gender identity, national or ethnic origin, age, disability or veteran status. Rice University is an Equal Opportunity/Affirmative Action Employer.

Post-doctoral Position in the Laboratory of Dr. Ed Nikonowicz

Posted on August 2, 2016

A post-doctoral position is available immediately in the laboratory of Dr. Ed Nikonowicz in the BioSciences Department at Rice University in Houston, Texas. The initial appointment is for one year and can be extended for additional years. The project involves structural and functional studies of RNA-mediated gene regulation with an emphasis on understanding the contributions of select tRNA nucleobase modifications to gene activity and cell fitness. An interdisciplanry approach utilizing genetic and biophysical methods will be used to correlate in vitro and in vivo measurements.

The applicant should have a PhD in Biochemistry, Microbiology, or related field, good quantitative skills, and expertise in molecular and biophysical techniques. A strong interest in RNA research is required. Rice University is located adjacent to the Texas Medical Center, home to several research institutions including UT Medical School, Baylor College of Medicine, and MD Anderson Cancer Center.

To apply, please submit a CV and provide the names of two references to edn@rice.edu.

Position as PhD Student (Three Years)

Posted on August 2, 2016

A position as PhD student (three years) is announced for the junior group 'Non-coding RNAs in cardiovascular and neoplastic disease'. The focus of the work will be on the identification of medium-sized non-coding RNAs, which show a deregulated expression



in neoplasias (especially renal cell carcinoma). Promising RNA candidates will be selected and further validated in suitable cell culture models. The aim of this project is to elucidate the role of medium-sized RNAs in neoplastic disease and to establish novel diagnostic markers/therapeutic targets.

Required skills:

Master of science or equivalent in life science (e.g. biology, biochemistry)

Interest for basic biomedical research

Basic knowledge on methods in biochemistry and molecular biology (e.g. cloning, Western Blot)

Experience in RNA biology (RNA isolation, Northern Blot, RT-qPCR)

Experience in mammalian cell culture

Knowledge on animal work is preferred

Experience in bioinformatics (NGS-data)

Please send your application via mail to Dr. Marcel Köhn (<u>marcel.koehn@medizin.uni-halle.de</u>) until the 19th of August 2016. The project start is scheduled for October/November 2016.

Post-doctoral Position at the Central-European Institute of Technology (CEITEC)

Posted on <u>July 31, 2016</u>

CEITEC is a scientific centre in the fields of life sciences, advanced materials and technologies whose aim is to establish itself as a recognized centre for basic as well as applied research. CEITEC offers a state-of-the-art infrastructure and great conditions to employ excellent researchers.

A post-doctoral position is available at the Central-European Institute of Technology (CEITEC), Brno, Czech Republic, in the group of Mary O'Connell. This work is funded by the ERA Chair grant. The project focuses on how modification in RNA is used by the innate immune system to discriminate 'self' from 'non-self' (Mannion et al., Cell Reports. 2014; http://dx.doi.org/10.1016/j.celrep.2014.10.0).

The successful candidate will join a team of motivated researchers who are investigating the proteins and RNA involved in this novel innate immune pathway. We also want to elucidate and identify mutations in this pathway that result in autoimmune disorders. We use a variety of different models in our investigations; Drosophila, mice and stem cell culture. Requirements:

The candidate should be highly motivated, self-driven and passionate about science with a solid publication record. A PhD degree in either molecular biology, biochemistry, immunology, mouse genetics, stem cells is required. Applicant should have a strong background in standard molecular biology and biochemistry techniques. Good communication and interpersonal skills and fluency in spoken and written English are required. Expected start date is preferably autumn/winter of 2016 or after upon agreement. We offer:

We offer a competitive salary that will be based on the candidate's qualifications and experience.

Anticipated start date: November 2016

Please send the application (including CV, short statement of research background / interests and the contact information of at least three references) by e-mail to <u>recruitment@ceitec.muni.cz</u>

Please quote the "PostDoc ERA Chair" in the subject.

Electronic application deadline is: September 16, 2016

Information about Brno, Czech Republic

• The capital of South Moravian Region and the second largest city in the Czech Republic with a population of almost 400,000 people

• Modern, dynamic and fast growing centre of industry, trade, science, research and innovation with business incubators and centres of excellence in science

• A city of universities with more than 86,000 students

• More than 10,000 researchers; 2,200 IF publications/year; 600+ PhD graduates/year

• 500 mil. EUR of R&D investment per year, more than 350 companies with in-house R&D

• City of Gregor Mendel, the founder of genetics; the prestigious Mendel Lectures series takes place in Brno since 2003 (lectures of the world's top scientists, including Nobel Prize winners)

For further information about:

• CEITEC, please visit <u>www.ceitec.eu</u>

• CEITEC Welcome Office, please visit <u>http://www.ceitec.eu/ceitec-welcome-office/t1137</u>

• Masaryk University, please visit <u>www.muni.cz</u>

• Brno, please visit <u>http://www2.brno.cz/index.php?lan=en&nav01=20608&nav02=20617</u>

POSTDOCTORAL RESEARCH FELLOW POSITION IN RNA BIOLOGY AND HEART DISEASE

Posted on <u>July 24, 2016</u>

Department of Biochemistry and Molecular Biology at University of Texas Medical Branch

A post-doctoral fellow position starting fall 2016 is available in the laboratory of Dr. Muge Kuyumcu-Martinez to study posttranscriptional gene regulation by RNA binding proteins in normal and diseased hearts. We utilize inter-disciplinary approaches that



combine mouse genetics, cell biology, genome editing, biochemistry, and genome-wide analyses (e.g. RNA-seq and CLIP-Seq) to investigate molecular mechanisms that dictate post-transcriptional decisions in the heart.

We are looking for a highly motivated, bright and enthusiastic candidate with a background in RNA biology, heart development or cardiac physiology. The candidate should be to able to work as a team member, learn new skills rapidly, and have excellent communication skills. It is highly desirable that the applicant received his/her PhD degree within the last 2 years.

University of Texas Medical Branch located in Galveston island is a part of the Texas Medical Center, which is the largest medical complex in the world comprised of 54 highly collaborative and interactive medically oriented institutions.

If you are interested, please provide your curriculum vitae, a statement of career interests (1 paragraph long), and contact information for three references to <u>mmmartin@utmb.edu</u>.

<u>Two Postdoctoral Positions Available in RNA Structural Biology in The RNA Institute in</u> <u>NMR and Mass Spectrometry</u>

Posted on July 11, 2016

Two Postdoctoral Positions are available in RNA structural biology in The RNA Institute in NMR and Mass Spectrometry. The Institute is developing cutting edge technology for the advancement of RNA therapeutics and diagnostics in infective disease (viral and bacterial and diabetes), as well as basic understandings of RNA biology in puripotent stem cell differentiation and the effects of cannabinoids and bis-phenol-A. We are looking for a bright and enthusiastic individuals who seek answers and travels beyond known boundaries.

(1) A Post-Doctoral Associate position is now open in the lab of Dr. Paul F. Agris within The RNA Institute of the University at Albany (SUNY). Applicants are sought with expertise in modern high-field NMR instrumentation for determination of macromolecular structure, RNA, RNA-RNA, RNA-protein and small molecule interactions in infective disease and in diabetes. Applicants must also have experience in molecular biology/biochemistry with experience in RNA preferred.

(2) A Post-Doctoral Associate position is now open in the RNA Institute with Dr. Maria Basanta Sanchez in analytical development of high-throughput methods to characterize RNA modifications, the epitranscriptome, from a wide variety of biological systems using Mass Spectrometry-based technologies. In addition research includes the development of high-throughput methods of RNA separation and purification and the use of chromatography to decipher RNA structure. Applicants are sought with expertise in small-molecule mass spectrometry; chromatographic separation techniques; statistical analysis of large data sets.

The positions require the ability to dissect problems and projects into manageable tasks; demonstrated organizational skills with the ability to handle multiple tasks with different priorities; ability to work on a team, yet demonstrate the skills of independence expected in career advancement; excellent oral and written communication skills. Foreign nationals must have a J1 visa with at least two years remaining to be a postdoctoral fellow in the US or an HIB. An H1B application will not be financially sponsored.

For the NMR position apply to <u>pagris@albany.edu</u> with the subject line of NMR Postdoc Fellow and for the MS position apply to <u>mbasantasanchez@albany.edu</u>. Include: letter of interest with date of availability, complete curriculum vitae with list of publications, statement of research experience in macromolecular NMR, or Mass Spectrometry and list of three or more contacts for letters of reference.

Postdoc positions to study evolution of gene expression

Posted on <u>July 11, 2016</u>

We are looking for two brilliant, motivated, and adventurous individuals to join the Shah Lab (<u>theshahlab.org</u>) at Rutgers University as postdoctoral researchers.

What we do:

We generate high-throughput genomic datasets and use computational models to study

- 1. How patterns of gene expressions evolve and how various factors influence the dynamics of protein synthesis in cells.
- 2. How epistatic interactions between mutations affect protein evolution.

What will you get to do:

We are not looking for someone to work on specific projects ongoing in the lab. Rather, you will have the freedom to work on your best ideas that are aligned with the lab's research focus. You will also have several opportunities to collaborate with researchers both at Rutgers and elsewhere on your ideas and other projects of mutual interests. In addition, you will have opportunities to co-teach a class as well as mentor students, if you so desire.

Finally, you will get the resources and support to develop your own research program as you plan to move to the next stage of your career.



What is expected of you:

Good writing and speaking skills to communicate and convince others of your research ideas, and a drive to see them to completion. You should be willing to collaborate freely and be open to give/take constructive criticism. You should also be willing to teach/share tricks and tools you picked up in grad school with the rest of the group.

What to expect:

Environment:

A fun, supportive environment – both in the lab and the Genetics department. Lab and office space in a fancy new-ish building and quiet workspaces when needed.

Coffee:

Coffee is serious business in the lab. You will have access to the finest beans from micro-roasters across the country for amazing espressos, lattes and pour-overs. Because we are an inclusive bunch, tea drinkers will also be tolerated. Compensation:

Let's face it, postdoc pay sucks. Salaries will be based on NIH scales with some flexibility depending on the funding level of the lab at the time. In addition to medical and life insurance you will also get not-too-shabby retirement benefits. Advice/Mentoring/Support:

In addition to being your scientific mentor, my primary responsibilities would be towards your personal and professional growth. You will always find an audience to discuss opportunities and challenges, and a strong advocate for your interests. Desired Qualifications:

A Ph.D. in evolution, genetics, or statistics. In rare cases we will also consider individuals with a Ph.D. in mathematics or physics. How to apply:

Fill out the form here – <u>https://goo.gl/sNO5pq</u>

Postdoctoral position at the interface of RNA and Chromatin in Colorado

Posted on July 11, 2016

A postdoctoral fellow position is available in the lab of Aaron M. Johnson at the University of Colorado School of Medicine in the Denver Area. The research focus for this position is studying the molecular mechanism of non-coding RNA-mediated heterochromatin form and function using diverse cell and molecular biology approaches. See <u>www.AJLab.org</u> for details. Highly-motivated senior graduate students or current postdocs are welcome to apply. The ideal candidate will have previous experience with basic molecular biology and mammalian tissue culture techniques. At least one first-author research publication from

graduate school is an expectation. This position is immediately available and grant-funded for up to five years; however, applications for postdoctoral fellowships will also be highly encouraged.

The Johnson Lab is located in the Department of Biochemistry and Molecular Genetics, a collegial group of scientists that believes that informality and idea-sharing are vital for a thriving scientific environment. Recently, the University of Colorado School of Medicine has invested \$20 million in an RNA Bioscience Initiative that will further advance RNA-focused research, broadly defined. The Initiative will recruit additional faculty, provide grant and fellowship opportunities, and foster a broad spectrum of RNA science from bench to bedside. See <u>www.RNABio.CO</u> for details.

Send e-mail inquiries for postdoc positions to: <u>aaron.m.johnson@ucdenver.edu</u>

Attach a CV, including a list of three professional references. Please include in the e-mail a description of your interest related specifically to the research of the lab.

Postdoctoral positions in RNA regulation at Sloan-Kettering, New York City

Posted on July 7, 2016

We seek motivated scientists with strong RNA background to be involved in our studies of post-transcriptional regulatory networks. Our laboratory at Memorial Sloan-Kettering Cancer Center combines experimental and computational approaches to discover and functionally elucidate small RNA biogenesis, mRNA processing, and regulatory networks that govern neural specification and function.

We have several ongoing projects available, including: (1) Elucidation of mechanism and biology of tailing and trimming pathways. (2) Genomics and genetics of RNA methylation pathways. (3) Developmental and behavioral analysis of miRNA knockouts. Each project has substantial unpublished molecular and genetic data that the candidate can take advantage of, primarily in the Drosophila system, but findings can potentially be extended into mammalian systems.

We have openings for 2 highly motivated postdoctoral fellows with broad interest in integrative strategies to join our team. Relevant candidates for the first two projects must have strong experience in studying RNA processing using cell culture, in vitro approaches, and genomewide strategies. Relevant candidates for the third project require strong background in Drosophila genetics and neurobiological methods. Computational expertise is beneficial for all candidates. Positions are available immediately and funded for at least three years, contingent on performance. Please send letter of inquiry, CV and references to <u>laie@mskcc.org</u>. Recent publications on small RNA mechanisms and miRNA neural biology:

Garaulet, Developmental Cell 2014, Wen et al, Molecular Cell 2015, Bortolamiol-Becet, Molecular Cell 2015, Sun, PLoS Genetics 2015; Garaulet Journal of Neuroscience 2016.



University of California, Santa Cruz (UCSC) Postdoctoral Position

Posted on June 29, 2016

The University of California, Santa Cruz (UCSC) invites applications for a postdoctoral position in the laboratory of Assistant Professor Angela Brooks in the Department of Biomolecular Engineering. The successful candidate will participate in research to further elucidate the role of somatic transcriptome alterations that contribute to cancer phenotypes, with a focus on altered RNA splicing. The successful candidate will be expected to develop and implement computational methods on high-throughput sequencing data, play key roles in international research collaborations, and lead collaborative projects consisting of other computational and "wet lab" biologists. Candidates with a strong cancer and/or RNA biology background with a strong interest in developing computational expertise are also encouraged to apply.

BASIC QUALIFICATIONS: Ph.D. or equivalent in computational biology, computer science, mathematics, statistics, bioengineering, genetics, biochemistry, molecular biology, cell biology, or other relevant field; demonstrated excellence in academic research as evidenced by one or more peer-reviewed, submitted, or in-preparation first-author publications.

PREFERRED QUALIFICATIONS: Experience with high-throughput sequencing data analysis; strong interpersonal skills; experience leading a team or project; good written and verbal communication skills; strong interest in RNA biology and cancer biology. POSITION AVAILABLE: As soon as possible

TERM OF APPOINTMENT: The initial appointment is for one year, with likely extension, contingent upon availability of funding and positive performance evaluation.

TO APPLY: Please send a cover letter, CV, and three references to anbrooks@ucsc.edu.

Postdoctoral position in the field of RNA biology and metabolism

Posted on June 23, 2016

The German Cancer Research Center (DKFZ) invites applications for a highly motivated and creative postdoctoral researcher to explore the posttranscriptional regulation of metabolism. The DKFZ is located in the picturesque city of Heidelberg in the South of Germany and benefits from an exceptionally strong research environment, with Germany's oldest university and several other leading life science research institutions in Europe. The successful candidate will join the lab of Dr. Bruno Galy in the "virus-associated carcinogenesis unit" of the DKFZ.

Metabolic remodeling is emerging as a key process of physiology and disease. Although posttranscriptional regulations play a key role in shaping proteomes, genetic control of metabolism has so far been mostly investigated at the level of transcription. The interconnection between metabolism and the complex life of a mRNA, from its synthesis to its translation and decay, remains poorly understood. Iron metabolism is an ideal model system to study the posttranscriptional regulation of metabolism. Indeed, iron homeostasis is maintained by two RNA binding factors called Iron Regulatory Proteins (IRPs). The IRPs respond to changes in cellular iron levels and in turn modulate the translation or turnover of target mRNAs encoding iron management proteins. In this postdoctoral project, we will use high-throughput approaches developed recently to define the regulatory scope of the IRP network on a system wide scale. This integrative approach will be carried out in vivo, using state-of-the-art IRP mouse models. With this work we wish to unveil new facets of a central homeostatic circuit in the cell, and establish a basis for the study of other gene regulatory networks with similar properties.

The applicant holds a Ph.D. (or equivalent degree) in biology, biochemistry or related field and an excellent publication record. He/She is expected to have a strong background in RNA biology. A solid experience with cell and molecular biology techniques and in particular high throughput approaches (e.g. ribosome profiling) will be essential; familiarity with standard bioinformatical analysis of large data sets is also required. The candidate is rigorous, able to conduct independent research, but also enjoys interacting with colleagues of different disciplines and nations. Good presentation skills and experience on project management (importance of scheduling, deliverables, reporting) will be highly valued.

Funding for a total of 3 years is available and the position is open immediately. Your application (in English language) must include a CV, a summary of academic records, your research interests, and at least two letters of recommendation (or contact details of potential referees). For further question, please contact Dr. Bruno Galy (<u>b.galy@dkfz.de</u>).

Department of Cellular and Molecular Physiology at Yale School of Medicine

Posted on June 21, 2016

A postdoctoral position is currently available in the laboratory of Carson Thoreen in the Department of Cellular and Molecular Physiology at Yale School of Medicine. The laboratory is seeking to understand how the mTOR pathway, a master regulator of growth, controls the translation and stability of mRNAs under normal and disease contexts. We employ a wide range of approaches that include deep-sequencing (eg. ribosome profiling), bioinformatic and classical biochemical strategies. Creative individuals with a PhD or MD, and preferably a strong background in biochemistry and/or cell biology and a quantitative bent, are encouraged to apply. Applicants should send a current CV to carson.thoreen@yale.edu.

Diseases of mRNA metabolism

Posted on June 14, 2016



The MMPU aims at strengthening the link between molecular research and medicine and consists of 8 international teams of molecular research-oriented MDs, PhDs, PhD students and technicians. The research philosophy aims at the molecular understanding of the basis of common human diseases, its applications in diagnosis and therapy, and feedback from 'bedside medicine' into the research laboratory.

https://www.klinikum.uni-heidelberg.de/Molecular-Medicine-Partnership-Unit.114597.0.html

You will be integrated into the MMPU team "Diseases of mRNA metabolism" which focuses on basic and translational aspects of mRNA metabolism in common diseases such as the hemoglobin disorders, thrombosis and inflammation and childhood cancer. One position is required to pursue a project addressing the mechanism of nonsense-mediated decay (NMD), one of the cell's key mRNA quality control pathways to limit the synthesis of faulty proteins. The other position will also be integrated into the SFB 1036 "Cellular Surveillance and Damage Response" addressing mechanisms of stress induced regulation of mRNA 3' end processing. The successful candidates (m/f) will be highly motivated and interactive scientists to join an international and collaborative team. You hold a degree in molecular biology, genetics, or biochemistry and ideally have a background in molecular and RNA biology. Experience in systems approaches such as ribosomal profiling and/or proteome-, mRNP-, or transcriptome analysis on a global level including bioinformatic skills will be an advantage.

The positions are available for three years with potential extension.

Please apply to:

MMPU

Andreas Kulozik, MD, PhD

kinderonkologie.hd@med.uni-heidelberg.de

with a letter summarizing previous work experience and contact information of two referees.

www.klinikum.uni-heidelberg.de/Jobs-Karriere

We stand for equal opportunities for women and men. Severely handicapped with the same eligibility will be given priority.

<u>GRK 1591-Posttranscriptional Control of Gene Expression: Mechanisms and Role in</u></u>

Pathogenesis

Posted on June 10, 2016

The Martin Luther University Halle-Wittenberg operates the research training group "GRK 1591-Posttranscriptional control of gene expression: mechanisms and role in pathogenesis" funded by the German Research Foundation (DFG).

For the working group of Prof. Großmann und Dr. Schreier the RTG is seeking a

PhD Student

Description:

MicroRNAs (miRNA) are small non-coding RNAs that influence cell physiology in health and disease. In the last years we investigated the role of miRNAs in heart hypertrophy. During the last years non-coding RNAs, have been shown to affect electrical properties of cardiomyocytes. The aim of our project is to analyze the impact of miR-221/222 and mirR-208b on electrical remodeling during heart hypertrophy and to identifie the underlying the molecular mechanisms of this influence.

We are an enthusiastic team and offer intensive training and mentoring. The successful candidate will have the opportunity to learn a wide spectrum of genetic, molecular biology, biochemical and cell biology techniques. She/he will be exposed to cutting-edge methods to study translational aspects of cardiovascular pathology (e.g. genetic knockout models, next-generation sequencing, in vivo methods, patch clamping). The willingness to participate in animal studies is mandatory. For further information can be obtained at www.medizin.uni-halle.de/index.php?id=786 or www.medizin.uni-halle.de/index.php?id=272. Your profile:

We are looking for self-motivated individuals with a diploma or master's degree in biochemistry, biology, veterinary medicine or related subjects. Previous exposure to and experience with basic biochemical and molecular biology techniques as well as interests in molecular aspects of cardiovascular research or RNA biology is essential.

Please send your application including a letter of motivation, CV, certificates, recommendation letters in one pdf file. The position is limited to 2 - p and the pole p will be based on TV L ((50())

The position is limited to 3 years and the salary will be based on TV-L (65%).

The working Group of Prof. Großmann and Dr. Schreier is located at the Julius Bernstein Institute of physiology at the Martin Luther University of Halle-Wittenberg, Halle (Saale), Germany.

For further information please contact Dr. Barbara Schreier, phone 0049-3455574759 or barbara.schreier@uk-halle.de.

The Martin Luther University of Halle-Wittenberg is committed to increase the percentage of female scientists and encourages female applicants to apply. Among candidates of equal aptitude and qualifications, a person with disabilities will be given preference.

To apply for the position please send the application documents until the 15th of July 2016 either via e-mail to <u>barbara.schreier@uk-halle.de</u> or to the following address: Martin-Luther University Halle-Wittenberg, Julius Bernstein Institute of physiology,

Magdeburger Str. 6, 06112 Halle/Saale, Germany. We ask for your understanding that we cannot return application documents that are sent to us by post. We apologize for any inconvenience this may cause.

Postdoctoral Researcher Positions at The Ohio State University

Posted on <u>June 2, 2016</u>



Two molecular biology Postdoctoral Researcher positions are available at The Ohio State University to work in a 20-member Nanobiotechnology and RNA nano technology interdisciplinary lab directed by Peixuan Guo

(<u>http://rnanano.osu.edu/Guo/peixuanguo.html</u>, <u>https://www.youtube.com/watch?v=rRGYHFulzkQ</u>, <u>https://www.youtube.com/watch?v=LpUGuEQos6Y</u>). Please send CV to Nancy Wardle (<u>wardle.5@osu.edu</u>) and Dr. Hui Zhang (<u>zhang.7173@osu.edu</u>; phone number: 614-293-2188).

The Ohio State University is an equal opportunity employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation or identity, national origin, disability status, or protected veteran status.

