RNA Society Newsletter Aug 2017

From the Desk of the President,
Juan Valcarcel

Dear friends,

Participants in the RNA Society Meeting in Prague returned home with renewed enthusiasm for science. We will not soon forget the long

standing ovation from the audience that followed the Science and Society Lecture by **Adrian Krainer**. He reported the astounding success of an RNA therapeutic treatment for Spinal Muscular Atrophy, based upon the use of chemically modified antisense oligonucleotides that target an intronic splicing silencer in the SMN2 gene. Everyone in the audience had – at the very least – a knot in their throat after watching movies of a child walking and even riding bicycles, who previously could barely move and had a rather poor prognosis without treatment. Such historical (cont. p2)

In this issue :

medical advances would not have been possible without the support from the patients' families, from philanthropists, from NIH funding, from wise investors, from outstanding professionals at Ionis Pharmaceuticals and Biogen, and without the flexibility of regulatory authorities that expedited the drug's approval after impressive results from early clinical trials.

However, the roots of this success can be traced back to a discovery made 40 years ago in the laboratories of **Phil Sharp** and **Richard Roberts**, the split nature of the gene, which might have been considered at the time a curiosity of the genome organization of a (not particularly pathogenic) human virus. Forty years later, the work of several generations of researchers has produced a collective body of knowledge that provided the concepts, technologies and paradigms that allowed Krainer and his group of talented collaborators to achieve this breakthrough.

As a junior RNA scientist, it was extremely empowering to see how impactful RNA can be in hypothesis-driven treatments for disease.

I encourage all of you to publicize this wonderful success of basic science. Let us do our best to make it known to our science colleagues, our fellow citizens and policy-makers. Let's make the effort to bring it up in every science and society event, in newspapers, twitter or any other media. Explain to others how the design of a therapy for SMA simply would have been impossible without previous basic understanding of genes, their organization and regulation. The SMA success relied upon the pioneering efforts of many other scientists who laboriously paved the way to the use of nucleic acids as therapeutic agents. We should highlight the reality that initially small results can become the foundation of whole areas of science, the basis of cures or other practical applications, in unpredictable ways. We need to clearly explain that all this takes time, sometimes decades of painstaking effort, long nights and many disappointments. This understanding of how real science is done reveals the unrealistic demands for short-term practical results. Yet, the funding agencies or policy-makers expect translational science and transformative data in a 3 or 5 year period. It's never been more important to communicate the beauty of Nature's mechanisms, as well as the fact that understanding the science takes time.

Prague was of course much more than that one presentation and we should thank one last time the Organizing committee. **Andrea Barta**, **Rachel Green**, **Christopher Lima**, **Ron Micura**, **Petr Svoboda** and **Yukihide Tomari** did a phenomenal job selecting a great, comfortable venue, organizing highly informative oral sessions and lively poster evenings. They assembled truly inspiring Keynote lectures by **Rob Singer**, **Erik Sontheimer** and **Marina Rodnina.** They accommodated the diverse styles -and full of human flavor- acceptance speeches by Society Prize winners **Lynne Maquat** (see p.4), **Wendy Gilbert**, **Karla Neugebauer**, **Gene Yeo** and **Nils Walter** (see p.8). Sunsets with fireworks over the Charles Bridge rounded up the experience and sealed our memories of Prague 2017.

Fortunately our next meeting in Berkeley (May 29 -June 3, 2018) is less than a year ahead, and I am confident to predict that the intense efforts of **Adrian Ferré-D'Amaré**, **Atlanta Cook**, **Anne Ephrussi**, **Don Rio** and **Mihaela Zavolan** will make our 23rd Annual Meeting another memorable event for our field and for science in general.

I would like next to discuss an initiative of the Board of Directors to carry out an experiment: a pilot test to evaluate the actual needs and

I met some wonderful, intelligent people, and the Science and Society lecture was really inspiring - it shows what we're all working so hard towards.

feasibility of establishing a **Mentoring Program** supported by the RNA Society. Education, training and career advice is obviously a key component of our science system and an essential ingredient for its sustainability. Even the great Isaac Newton believed that he was able to see further because he stood on the shoulders of giants. But, do we need to add yet another layer of mentoring to our well-established training of new generations of scientists? Aren't the official mentor-mentee relationships the best-proven instruments to secure the advance of science, as illustrated by the "who trained who" genealogical trees branching out from the pioneers of our field? Isn't it actually a distinguishing feature of our Society that it is open and collegial enough so that members can (and do already) approach and get advice from anyone, without any need for formalizing such exchanges?

Structured independent mentoring, however, can provide complementary perspectives and valuable additional assets. The simple concept is that an experienced mentor – on a voluntary basis – provides regular feedback to a small number (1-2) of mentees who are not under their direct supervision. The mentee should feel free to pose any problem or question related to his/her current project, career perspectives, interactions with colleagues, networking, etc. Often the views of an external mentor, not influenced by the day-to-day course of events, can provide a fresh perspective for the mentee to reconsider the evolution of a project, the need for a strategic switch, for acquiring particular skills, working out ways to reformulate interactions with a colleague, etc. Examples may span from a young faculty member trying to identify a scientific niche, to a postdoc trying to decide between career paths in academia or in industry, to a PhD student wondering about the best strategy to apply for postdoc positions or change research topics. Mentoring could be particularly helpful for young scientists wishing to return to their home country or considering a move to another country or scientific organization. Periodic meetings (virtual or physical, including the next Meeting of the RNA Society!) can help to establish milestones, outline realistic plans and hopefully help to establish durable links into the future. As mentioned above, external mentoring should be neither redundant nor interfere with standard mentoring, but rather complement it and add value.

…wonderful time in Prague RNA2017. Got great suggestions for my work and career. This conference is a great opportunity for young researchers

As a graduate student, it was nice to sit back and enjoy the science…. Sometimes I get so caught up and focused on my project, I forget to notice all the beautiful intricacies of RNA.

How to implement such a program in our Society? A very nice example of an activity already happening every year at our Annual Meetings is the traditional Mentoring Lunch, an initiative heavily subscribed by PhD students and postdocs participants and organized by **Nancy Greenbaum** (see p12). Interest, generosity and useful advice flow in abundance during these gatherings. While this is indeed a highly regarded component of our Annual Meetings, it is often perceived as too short and superficial for long-term benefit.

To expand these activities in an organized manner, an electronic form is now available for interested potential mentees. It requests information about their expectations and reasons to enroll in the program. Board members and other volunteers will identify viable mentor matches, facilitate a first contact

The oral presentation gave me an invaluable opportunity to put my work out there, and facilitated in helping me find collaborators and receive very useful feedback.

and provide additional information about structured mentoring and its follow up. To evaluate the real needs and *put in place an embryo* of the necessary logistics, the Mentoring Program will go through a pilot phase with a limited number of mentor-mentees interactions. The Program will be evaluated after 6-9 months and the outcome will determine the scale at which a full Program should be implemented in the future.

Supporting our younger scientists is one of the best services that our Society can provide for the future of RNA Research. The external Mentoring Program may, in due time, become an important instrument to sustain our field and further build our deep sense of community. Do take advantage of this new opportunity offered by our Society! If you have comments or feedback, please contact me: Juan Valcárcel (juan.valcarcel@crg.eu)

Note : text in green boxes in this piece were member's responses to the post-meeting survey, submitted on-line

Highlights of RNA 2017: The 22nd Annual Meeting of the RNA Society

2017 RNA Society Lifetime Achievement Award: Lynne Maquat

Lynne Maquat has played many roles in the evolution of the RNA Society, serving as Board member, Secretary/Treasurer, organizer of two

annual conferences, and RNA Society President. In its early years, she oversaw the Mentoring lunch, now a mainstay at the annual meeting. Lynne also started the RNA Society Women in Science dinner to address the "leaky pipeline" that has been used to describe the dearth of women with a PhD degree in science who go on to a career utilizing their PhD degree. This dinner morphed into the RNA & Society dinner and most recently appeared as the Science & Society Lecture at RNA2017 in Prague. Each of these events featured a speaker who helped us appreciate the larger aims and implications of the scientific research we do. For all Lynne had done for the Society, she was awarded the RNA Society Outstanding Service Award in 2010. This year, the Society acknowledged all that Lynne has done for the field of RNA biology by honoring her with the 2017 RNA Society Lifetime Achievement in Science Award.

Lynne began her presentation by thanking her RNA colleagues in the audience who she felt she had grown up with. After all, throughout the years, they reviewed her manuscripts and her grants and asked the hard questions that helped move her research forward. They were supportive and appreciated her data even when some in the field had their doubts. Lynne then took us on a whirl-wind tour of her career – allowing us to see that, while she appeared to take various paths, it was obvious with 20/20-hindsight she was always interested in how RNA metabolism influences protein synthesis.

In the early 1970s, Lynne did undergraduate research in the cell biology lab of Stu Heywood at University of Connecticut-Storrs where she studied expression of the myosin heavy-chain gene in embryonic chick muscle to better understand the role of polyadenylation in mRNA translation. From there she went to the University of Wisconsin-Madison for graduate studies in biochemistry, settling in the Reznikoff lab where she examined how promoter mutations in the *E.coli* lactose operon alter beta-galactosidase gene expression. She admitted that her time as a graduate student was very helpful for establishing practices that have served her well when utilizing *E. coli* as a tool in her future studies, but her passion for RNA biology remained with eukaryotes, particularly with defects in RNA metabolism in human diseases.

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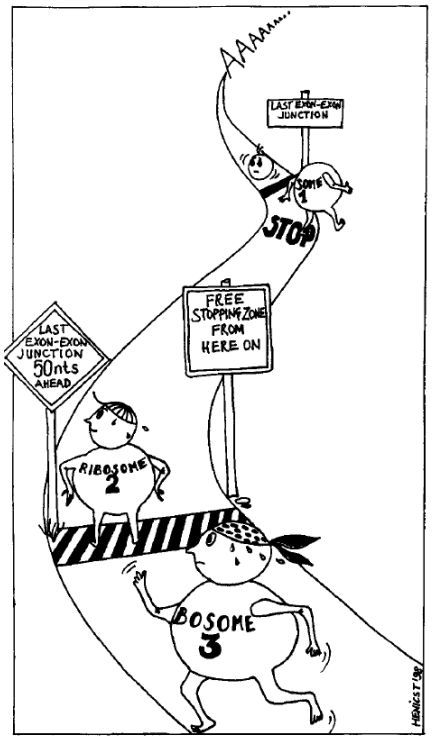
After completing her graduate work, Lynne stayed in Madison for a postdoc at the McArdle Laboratory for Cancer Research in the lab of Jeff Ross examining the molecular basis of various β-thalassemias. Lynne explained that, at the time, β^+ thalassemia was known as a hemolytic anemia that resulted in abnormally low levels of normal β-globin protein in peripheral blood reticulocytes. Her research brought her into the clinic, where she analyzed bone marrow aspirates from teenage or younger patients, some of whom she got to know, whose 'symptoms' included anemia and visible skeletal abnormalities. Her bench work demonstrated that β^+-thalassemias could be due to inefficient processing of the β-globin precursor to mRNA, leading to abnormally low levels of β-globin mRNA and, thus, protein. Her 1979 *PNAS* paper was the first report that human β-globin pre-mRNA exists and that a human disease could be due to a pre-mRNA splicing defect. This paper was published before the sequence of the human β-globin gene was published by the Maniatis lab. Subsequent analyses demonstrated sequence changes at splice sites in the patients she had examined.

From there, Lynne began examining the β^o thalassemias, which were characterized by the absence of detectable β-globin protein in blood. By analyzing bone marrow aspirates from patients of the Israeli hematologist Eliezer Rachmilewitz at Hadassah Hospital, she quickly realized that his patients were characterized not by inefficient processing of β-globin pre-mRNA but by unstable β-globin mRNA. She published this in a 1981 *Cell* paper. Her subsequent paper demonstrated that the cause of mRNA instability and disease is a premature termination codon.

Lynne established her lab at Roswell Park Cancer Institute, where she worked from 1982 – 2000. In 2000 she relocated her lab to the Department of Biochemistry & Biophysics at the University of Rochester Medical Center. In response to a 2007 Strategic Plan and given the strength of the University in RNA Biology, she founded the University of Rochester Center for RNA Biology.



During the time her lab was at Roswell Park, she continued to explore the mechanism of nonsense-mediated mRNA decay (NMD), generating mice transgenic for several β^o thalassemias alleles and also studying triosephosphate isomerase deficiency, which is another hemolytic anemia that is often accompanied by neurologic problems. Through work on these two diseases and their causative alleles, she elucidated much of the NMD

mechanism and learned important lessons about normal cellular RNA metabolism at the same time.

Lynne's lab characterized at least two aspects of NMD that were unexpected. One is that the position of introns within the pre-mRNA is a determinant for which premature termination codons trigger NMD of the spliced product. Work from her lab developed the "50-55 nt rule", which was derived from data indicating that a premature termination codon followed by an exon-exon junction more than 50–55 nt downstream causes the RNA to be degraded by NMD. This feature of mRNAs is important to cells as a type of quality control mechanism, preventing cells from synthesizing truncated proteins that could be toxic.

Lynne thanked her colleagues who she felt she had grown up with….they reviewed her manuscripts, read her grants and asked the hard questions that helped move her research forward.

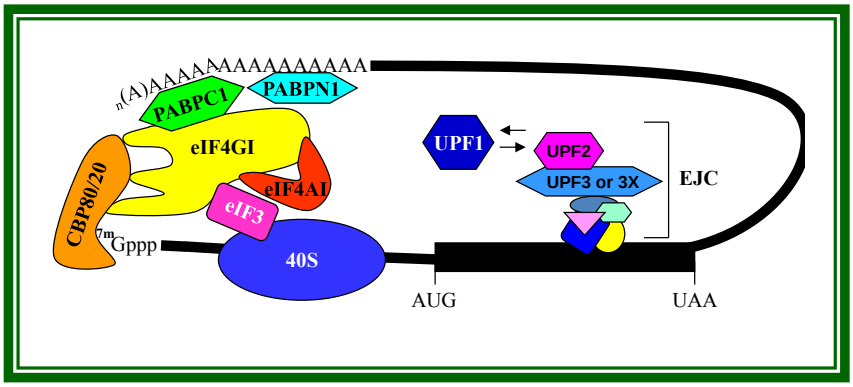
The rule led to Lynne's lab developing the idea of a "mark", deposited onto newly synthesized mRNA by the process of splicing that persists until the first round of translation. From work that Lynne subsequently did with Melissa Moore in 2000, the "mark" became the Exon-Junction Complex (EJC). Lynne reminded us that the EJC assembles on transcripts in the nucleus, as introns are spliced. She showed in 2003 that the EJC remains associated with the mRNA after export to the cytoplasm, where translation occurs, to form part of the initial translation complex. This initial translation initiation complex, which Lynne characterized and called the "pioneer translation initiation complex" in a 2001 Cell paper, is another unexpected discovery made through her work on NMD. Together with the EJC, the nuclear cap-binding proteins CBP20 and CBP80 typify the pioneer round of translation, during which the bulk of cellular NMD occurs. With microscopist and cell biologist Rob Singer, this round of translation was visualized to occur on the cytoplasmic side of the nuclear envelope by tracking single mRNA molecules, consistent with results from Lynne's carefully performed cell fractionation studies done in the mid-1990s.

Lynne reminded us about inspirational work from the Daneholt lab in 1989 showing that the large (45-kb) mRNP called a Balbiani ring granule could be translated in the cytoplasm while being exported across the nuclear pore. Lynne showed that if translation terminates during this pioneer round via a premature termination codon residing sufficiently upstream of an EJC so that the terminating ribosome fails to remove all downstream EJCs, then the mRNA underwent NMD. If translation proceeded to completion, then the nuclear cap-binding proteins were replaced by the largely cytoplasmic cap-binding protein eIF4E for steady-state rounds of translation. This replacement also typifies the fraction of mRNAs that prematurely terminate translation but escape NMD – NMD, like most cellular processes, is not 100% efficient.

[Lynne] elucidated much of the NMD mechanism and learned important lessons about normal cellular RNA metabolism

Since the discovery that PTCs in β-globin mRNA trigger NMD, it is now clear that NMD is a mechanism used by eukaryotes as protection from routine mistakes made during gene expression. Lynne pointed out that with so much alternative pre-mRNA splicing in our cells, mistakes are made all of the time, and NMD does the mop up.

In the mid to late 2000s, Lynne's lab started to study the choreography of the key NMD factor,



UPF1, on an NMD target. Her lab found that once NMD is triggered by the phosphorylation of UPF1, UPF1 binds eIF3 in the pre-initiation complex. This results in a block of 60S ribosomal subunit binding to the preinitiation complex. Since translationally active 80S ribosomes cannot continue to assemble on this message, translation is blocked and subsequently accompanied by recruitment of a variety of degradative activities that result in mRNA decay. Without translational repression, NMD fails to occur.

Recent work in Lynne's lab has examined the role of NMD in the cellular response to DNA damage. Under normal conditions, phosphorylated UPF1 protein plays a critical role in mRNA surveillance. However, in response to DNA damage, e.g. when breast-cancer cells are exposed to frontline chemotherapeutics, the UPF1 protein is degraded, thus inactivating NMD. This inhibition of NMD promotes cell death since an estimated 10% of cellular mRNAs are natural NMD targets among which a number encode pro-apoptotic proteins. Thus, NMD serves as a type of rheostat in response to cell stress, whether the stress is environmental or developmental. Should the change in cell environment become acute so as to require a response, then NMD is inhibited to bolster the appropriate response to the change.

Through studies of NMD, Lynne's lab also discovered Staufen-mediated decay (SMD) in the mid 2000s. During SMD, when the double-stranded RNA-binding protein Staufen binds to a 3' UTR and translation terminates upstream of bound Staufen, the phosphorylation of UPF1 recruited to the 3' UTR by Staufen triggers mRNA decay. More recently her lab has demonstrated that not only RNA hairpins but also lncRNA−mRNA and even mRNA−mRNA duplexes formed by imperfect base-pairing between partially complementary small interspersed nuclear elements (SINEs) can bring Staufen to 3' UTRs, recruit UPF1 and trigger SMD. The ability of Staufen to recruit UPF1 directly overrides the need for an EJC or the CBP80 protein.

Lynne ended by very briefly introducing one of her most recent areas of new interest: the decay of microRNAs. This is another example of a new direction for her lab based on studies of NMD factors, which it turns out, multitask in cells. We look forward to hearing how this new story evolves and – as much of her previous work has demonstrated – intertwines with the other pathways she is examining.

Because of Lynne, we now have a much better understanding of the complex network of post-transcriptional gene control.

2017 RNA Society Lifetime Service Award: Andrew Feig

Andrew Feig is an Associate Professor of Chemistry at Wayne State University in Detroit, Michigan. There, he studies RNAs and proteins that undergo significant structural changes as part of their biological function. Dr. Feig was the lead organizer for the RNA 2009 conference in Madison, and has been an advisor to the previous CEO. Most significantly, he served as the RNA Society's Chief Financial Officer (CFO) for the past four years. In that latter capacity, he worked diligently to streamline reimbursements, normalize financial reporting, establish an investment strategy, and move the society's reserves into more active investments.

RNA Society Early and Mid-Career Awards

This was the inaugural year for two new awards given to RNA Society members. These were designed to recognize individuals who have made either a single important discovery in the field of RNA or for an extended portfolio of work on RNA. Eligible recipients must be within the first 10 years (Early Career Award) or within their first 20 years (Mid Career Award) as an independent investigator. Two awardees were chosen in each category for this inaugural year, while future years will have only one in each category. See here for details if you would like to nominate yourself – or someone else. Deadline September 15th, 2017. Photo (from left to right):

Nils Walter (Mid-career awardee) is currently a Professor of Biophysics at University of Michigan. He obtained his PhD in the lab of Manfred Eigen, completed post doctoral work with John Burke, and has been on the University of Michigan faculty since 1999. He has made many contributions to our understanding of the dynamics of RNA reactions, especially the development of novel applications of single molecule spectroscopy for RNA folding, catalysis and splicing. He was nominated for bringing single-molecule methods and other approaches to bear on the study of dynamic processes in RNA. He has been a member of the RNA Society since 1995 and has presented numerous talks at RNA Society meetings. Nils has served as the local organizer for the 2012 meeting in Ann Arbor, as a member of the membership and nominations committee.

Wendy Gilbert (early career awardee) is currently an Associate Professor of Biology at MIT; she will soon be moving her laboratory to Yale University. She earned her PhD in the laboratory of Christine Guthrie and completed her postdoc with Jennifer Doudna. Her research focuses on uncovering new mechanisms of post-transcriptional regulation, through ribosomal proteins and more recently through tRNA and mRNA modifications. She was nominated for 'paradigm-altering' contributions to the field of post-transcriptional gene regulation. Wendy has been a member of the RNA Society since 2010. She has served as a co-organizer at the 2016 Kyoto meeting, a session chair at the 2014 Quebec meeting and now serves on the Society's Board of Directors.

Gene Yeo (early career awardee) is currently a Professor in Cellular and Molecular Medicine, UC San Diego. His PhD was obtained in the laboratories of Tomaso Poggio and Chris Burge and he completed his postdoc with Fred Gage and Sean Eddy. Gene has made many contributions to high-throughput and computational methods that were used to discovering interactions of RBPs in stem cell development and neurogenerative disease. He has been a member of the RNA Society since 2005 and has served as a poster judge as well as a session chair, for the 2014 and 2016 annual RNA Society meetings.

Karla Neugebauer (mid-career award) is currently a Professor of Molecular Biophysics and Biochemistry at Yale. She earned her PhD in the laboratory of Louis Reichardt. She completed postdocs with Mark Roth at the Hutch then went to EMBL in Heidelberg where she worked with Juan Valcarcel. She was a Group Leader at the Max Planck in Dresden (2001-2013) before joining Yale University as a faculty member in 2013.
Karla has done pioneering work on the link between pre-mRNA splicing and transcription, as well as examining the biogenesis of snRNPs. She was nominated for her innovative impact on the links between splicing and transcription, and the biogenesis of snRNPs. Karla has been a member of the RNA Society since 2004. She has served as a faculty advisor to the Junior Scientist Committee, as a member of the Board of Directors (2007-2008), and chaired sessions at the RNA Society annual meetings in 2006, 2008 and 2014.

RNA Society Poster Awards at RNA 2017

RNA Society Poster Awards were given to the following individuals at RNA 2017 based on their presentation of their data to a group of volunteer judges at the meeting. All awardees received $250. (shown left to right)

Felix LaRoche Johnston, #594, McGill University; **Erik Hartwick**, #427, University of Colorado Denver School of Medicine; **Y. Grace Chen**, #250, Stanford University; **Sezen Meydan**, #688, University of Illinois at Chicago; **Petra Beznoskova**, #673, Institute of Microbiology of the CAS; **Evelina Tutucci**, #491, Albert Einstein College of Medicine; **Maxim Mogilevsky**, #645, Hebrew University of Jerusalem; **Alexis Autour**, #168, CNRS; **Fabian Poetz,** #484, University of Heidelberg; **Eliska Svobodova**, #166, Institute of Molecular Genetics; **Olivia I. Paisley**, #627, University of Strathclyde; **Zhaoming Su**, #444, Baylor College of Medicine; **Julia Batki**, #234, Institute of Molecular Biotechnology; **Tina Lence**, #354, Institute of Molecular Biology; **Jessica Willi,** #336, University of Bern

These poster awards were sponsored by Biochemistry/ACS (6 awards), New England BioLabs (4 awards) and the RNA Society (5 awards). We thank the sponsors, the judges and all those who presented posters.

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.

This year, the RNA Society/Scaringe award went to : **Graduate Student : Malik Chaker-Margot,** Sebastian Klinge Lab, The Rockefeller University, for his work on Understanding of Eukaryotic Ribosome Assembly and the Small Subunit (SSU) Processome
And
PostDoctoral fellow : **Zhipeng Lu,** Howard Chang lab, Stanford University, for his work in Genome Wide Mapping of RNA Structure. (Unable to attend RNA 2017)

RNA Society Junior Scientists
Prague in Review

EVENTS AT RNA 2017

Pre-meeting Prague sight-seeing trails

On the afternoon prior to registration, the Junior Scientists gathered at the Congress Centre and broke into small groups to explore Prague along a series of trails designed to sample the best sights in the city. After snapping some group photos, the individual teams set out by subway and began collecting destinations.

Pre-meeting roundup at Congress Centre before exploring Prague

The trails moved from New Town towards Old Town, highlighting the National Theater, the Municipal House, the Charles University, the Astronomical Clock, and the Charles Bridge along the way. One group took a detour to donate to charity and decorate a brick with the Society logo.

The trails finished at the Prague Castle complex, with stunning views of the city and stops at St. Vitus Cathedral and the Golden Lane. A sudden, sunny rainstorm cooled us off on the way to catch the tram and subway back to Congress Centre.

RNA Society brick for charity

Junior Scientists at Saint Vitus Cathedral

Refreshments at the Junior Scientists Social

This scenic afternoon was a wonderful introduction to Prague's amazing attractions. Thanks to **Petra Beznoskova** for organizing and to local Junior Scientists for leading the way!

Junior Scientists Social

On Wednesday evening we convened at Zoom Restaurant for appetizers and drinks overlooking the Prague skyline at sunset.

Career Development Workshop

Our 2017 workshop focused on combatting **imposter syndrome,** a term used to describe feelings of insecurity common among scientists throughout their careers. **Fadi Marayati** hosted the session, and shared anonymous

testimonials and survey results from RNA-society faculty attendees, highlighting the fact that the phenomenon of imposter syndrome is prevalent among senior scientists in our own field.

A panel of guest speakers (**Dr. Kristin Lynch, Dr. Thomas Preiss, and Dr. Jim McSwiggen**) shared personal experiences confronting certain aspects of imposter syndrome. These testimonials were sincere, funny, and powerful, and members of the audience opened up and shared experiences of their own.

Group exercises during imposter syndrome workshop

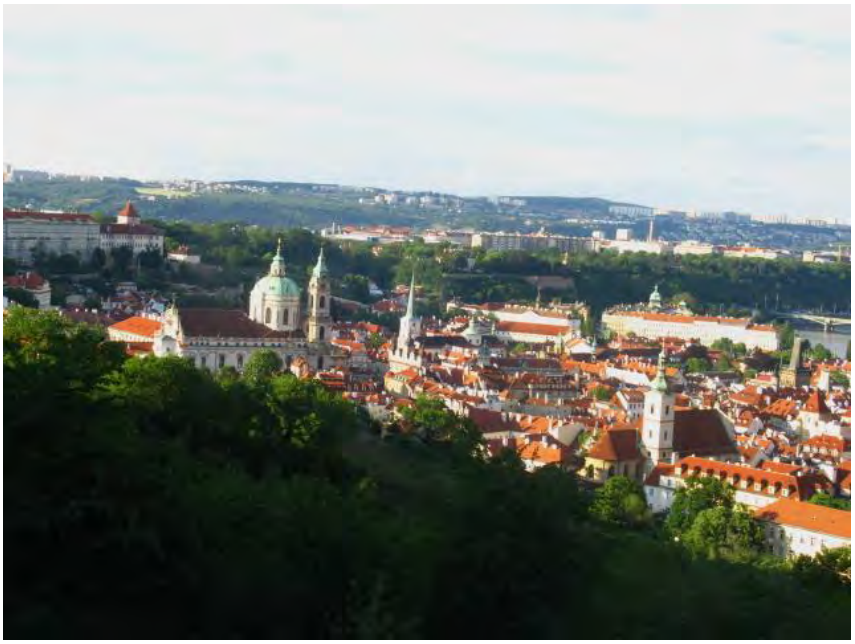
Following the panel discussion, the workshop split into small groups to discuss personal experiences. Members of these groups wrote letters of encouragement to one another and posted them to the conference room wall.

The overarching messages that came through in the discussions were 1) imposter syndrome is extremely common among scientists---you are not alone; 2) there is nothing wrong with feeling imposter syndrome, and it can even help you grow; 3) if you feel that imposter syndrome is impeding your progress, talk about it to people that you trust.

The feedback from this session was overwhelmingly positive, with many requests to continue with something similar in the future. Thanks to our guest speakers, to Fadi for hosting, and to the Junior Scientists committee for organizing.

See our piece (on p.15) for more info on what we're up to now. Take advantage of the opportunity to be an active member of the Society and make your voice heard! Be a member of the Junior Scientist Committee!

RNA Society Junior Scientists @jrRNAscientists RNA Society Junior Scientists



Mentoring Lunch RNA 2017
Nancy Greenbaum

As at previous RNA Society meetings, this year's Mentoring Lunch was a popular and productive event. A total of 140 mentors and ~365 mentees (out of 1005 attendees at the meeting) participated in the MM lunch (*i.e.* slightly more than 50% of the meeting attendees, continuing the pattern of the past few years). Many of the

mentors have contributed their expertise and experience to junior participants at a number of previous meetings, but we also welcomed a number of first-time mentors. In contrast with the need to divide attendees between two days (as at last year's meeting), the Prague Conference Center was able to accommodate everyone on one day, with 66 tables of 8 (typically two mentors and six mentees) in two large adjoining rooms. As the membership and meeting attendance reflect a more international Society, so does representation of participants at this event.

Upon registering for the event, participants – students, postdocs, faculty, industry professionals and research staff – selected from topics relating to careers in academic research or in biotech/industry (or deciding between the two), teaching, balancing of family/career, and preparation of grant/fellowship proposals. An interesting shift is occurring in topic selection that probably represents concerns about the future of funding for academic research and/or the robust growth of certain areas of the biotech and pharmaceutical industries: whereas at least 70% of mentors opted for topics in academic research institutions and teaching, >70% of mentees asked to sit at tables discussing Biotech/Industry or Making a Decision between Academic and Private Sector Positions. Additional mentors from the Private Sector were recruited to try to meet the requests of the mentees, but we clearly will need even more mentors to cover this direction in the future.

Wherever possible, there were male and female mentors at each table, as well as mentors from different countries. For the first time, we did not separate students seeking advice for postdoctoral decisions from postdocs seeking advice for faculty positions, but combined all those pursuing research careers at academic institutions at all levels. This changed seemed to work out well, as it enabled more junior scientists to learn from the questions of those pursuing the next step (and for those who were currently postdocs to share their experiences with graduate students).

Following the protocol from last year, we emailed mentors shortly before the meeting to remind them of the luncheon and to make suggestions for how to make the most of the table discussions. Fortunately, this time there were no competing Sponsored Sessions at lunchtime, so we had almost no "no-shows" or last-minute cancellations (on the contrary – we even had a little bit of extra space for last-minute attendees). The only complaint was about sluggish food lines – but of course we welcome your comments and suggestions for future MM lunches.

In an exciting step, significant interest has been voiced by some members of the Board and other Society Members to expand the range of mentoring activities, with a pilot mentor/mentee pairing starting with mentees at any critical career stage applying for a mentor in this pilot program. If you have ideas or would like to be part of the discussion, please contact me (nancy.greenbaum@hunter.cuny.edu) and/or Juan Valcarcel (juan.valcarcel@crg.eu)

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, and I look forward to seeing you at RNA 2018 in Berkeley!

From the desk of the CEO
Jim McSwiggen

I am pleased to report that the RNA Society continues to grow and to thrive. In July of 2008 there were just over 1200 members, while today we stand at 1625. This suggests that we bring something of value to our members, at a time when facebook and snapchat (and others) appear to be supplanting traditional member organizations as the preferred form of social engagement. During my tenure as CEO, I have worked diligently to bring more value to society memberships, and to look for new ways to attract new members. One of my goals has been to attract more corporate RNA scientists to participate in the Society and its activities. The progress has been slow, but some progress has been made. In this article, I wanted to discuss my rationale for seeking more industry participation, and to outline our progress in that area.

I see three reasons to promote more corporate participation in the RNA Society. First and foremost, there's a lot of interesting science being carried out in biotech labs. By my count, there are at least 70 small and mid-sized biotech companies engaged in developing nucleic acid therapeutics, or developing other therapeutics targeting RNA; at least another dozen large pharmaceutical companies are also doing nucleic acid research. The therapeutic modalities include RNAi, antisense, mRNA, miRNA, aptamers, DNA editing with or without CRISPR, immune stimulating oligos, decoys, and more. These companies have made significant progress in delivering their nucleic acid compounds to cells and specific organs. Nucleic acid modifications have been developed that dramatically alter binding affinity, nuclease stability, immune stimulation and, of course, targeted delivery. We need to hear about this work to learn about the fascinating uses to which basic RNA discoveries are being applied. Likewise, the industry scientists need to hear about the basic research going on in the many labs represented at the RNA Society meetings. Basic research insights will help to illuminate the mechanisms by which nucleic acid therapeutics enter cells or not, are sequestered or not, are degraded or not, and find their target or not. Despite 30 years of nucleic acid drug development, these key steps still leave large gaps in our understanding; the work reported at RNA Society meetings can help to fill those gaps. The dialogs started at our annual meetings could also lead to greater scientific collaborations between academic and corporate groups that could be beneficial for both parties and for society.

A second reason for encouraging more corporate participation is that many of our graduate students and post-docs are going to end up working in the biotech industry. The number of academic positions available to young scientists apparently continues to decrease, while those in industry are growing. We need to provide more opportunities for our young scientists to learn about the biotech industry, to develop contacts, and to present their work in front of representatives from that industry. Our young scientists certainly recognize that need. At our annual conference, we struggle to find enough industry mentors to meet the demand at our mentoring lunch.

A third reason for encouraging more corporate participation is that it should help in seeking financial support from these sources. I consider this motivation to be the least important of the three, as the Society's financial situation has been and continues to be healthy. Nevertheless, there is so much more that we could do if we could double or triple our spending on grants to small conferences, travel support, and awards–not to mention a host of new initiatives that could be considered. Companies are motivated to sponsor conferences or societies for two main reasons. Those with products usually want to advertise their product; in this regard, we have been moderately successful in soliciting contributions for display booths, abstract book ads, and sponsored seminars. The other type of sponsorship is based on a desire by the donor to advance the mission of the Society, without receiving a direct advertising benefit from the donation. We have been less successful with that type of donation–except for the two meetings in Japan, where the culture of corporate support for scientific meetings is

much stronger. Success in this second area, I believe, requires that we have greater participation from companies so that they can see–first hand–the value that we provide.

Currently, only a tiny fraction of RNA Society participation comes from the corporate world. Only about 1.6% of our membership are corporate scientists, while participation in our annual meeting has varied from 2.5% to just under 6% (the latter being 2011 in Kyoto). The low membership rates are not too surprising. Few corporate scientists have participated in our conferences in the past, so they don't have that baseline to even consider joining. The larger purses in the corporate world also make the financial benefits of membership less appealing (the companies pay for journal access, conference registration, etc.), and with few corporate colleagues in the Society, the networking aspects also may be of marginal value. Thus, to me, the larger objective is to increase industry participation in our annual meeting, regardless of whether that leads to increased membership rates.

Unfortunately, our conference is not geared towards industry participation either. We specifically avoid inviting very many well-known, senior researchers to speak at the conference, thereby making more space for young scientists to speak. In addition, the actual speaker list–and even the schedule–is withheld until a few weeks before the conference. This makes it extremely difficult for first time participants–especially from industry–to justify to themselves and to their bosses why they should attend our meeting instead of one of the many other meetings that invite many well-known speakers and release the program months in advance. This is something I would like to see modified. I don't think we need to add more name-brand speakers, but I would like to see the information disseminated as early in the process as possible. Such a change would be a benefit to everyone, as it's frequently mentioned in our post-meeting surveys as a way of improving the annual meeting.

So, what is being done to increase corporate participation in our annual meetings? In 2013, we created a business development committee to help engage with companies and to encourage their participation. Chaired first by **Maire Osborn** (2013-2016) and now by **Gianpiero Di Leva**, the goal has been both to seek corporate sponsorship for our meetings and, most importantly, to induce companies to participate in the meetings themselves by attending and possibly speaking. Gianpero is now working to expand the committee from just himself to a group of 3-5 volunteers. That will allow us to contact more companies in more parts of the world.

In 2015, we began a collaboration with the Oligonucleotide Therapeutics Society (OTS), in which each society would host a session at the other society's annual conference. Each society provides a session chair and two speakers for the other society's conference, so this provides us with more access to industry participation while the OTS gets more participation by academic researchers. The OTS is a smaller society with a smaller conference (~450 attendees), but their conference has about an even split between academic and industry participants. I am excited by the Junior Scientist Committee's plan to hold a pre-meeting biotech workshop at RNA 2018 (see p15). In addition to helping young scientists with their career plans, I am hopeful that it will also prompt at least a few more industry scientists to attend the regular meeting.

I am, of course, always talking up the RNA Society to my corporate colleagues, and urging them to join our annual meetings. I find that they are interested in attending (especially when we're at interesting foreign venues), but they have difficulty justifying participation in our meetings given the issues outlined above. Naturally, it would be easier for these folks to attend if they were invited speakers, but the small number of invited speakers at our meetings makes that difficult as well. I see no easy solution, although I haven't given up. I am open to your suggestions.

As always, if you have questions, comments, concerns or commendations regarding the RNA Society, please let me know. I am always happy to hear from our members (and happy, as well, to hear from non-members who want to become members).

Jim McSwiggen, CEO CEO@rnasociety.org

Jr Scientist Corner

Join the Junior Scientist Committee

The Junior Scientist Committee works throughout the year to relay career development and networking resources to junior scientists, and to plan workshops for the annual meetings. **Allison Didychuk** and **Petra Beznoskova** are moving on after their outstanding service to the committee, so we are currently looking for 2 additional member representatives to fill these positions. We will need 1 graduate student representative and 1 postdoc representative to join our committee. We are particularly interested in RNA-Society junior scientists working in the San Francisco Bay area that could assist us in planning the 2018 meeting of the RNA Society at the University of California Berkeley. Postdocs and graduate students interested in this opportunity should email junior_scientists@rnasociety.org.

Inaugural Webinar featuring Dr. Eric Westhof

Dr. Eric Westhof

We recently held the first RNA Society Junior Scientist Webinar, featuring **Dr. Eric Westhof** (Université de Strasbourg), the winner of the 2016 RNA Society Lifetime Achievement Award in recognition of his many contributions to our understanding of RNA structure, modeling, and evolution. His talk was entitled "Structural biology of RNA: Why do we need more?" and was very well received. The online webinar format allowed many junior scientists to ask questions and get personalized responses. If you missed it, you can download the webinar audio & presentation. We hope to plan more webinars featuring preeminent RNA scientists in the near future, so keep an eye out for announcements!

RNA 2018: Careers in Biotechnology and Pharmaceutical Industries Satellite Workshop

The Junior Scientists are excited to host the first installment of a pre-meeting satellite workshop that will take place prior to registration on the first day of the 2018 meeting in Berkeley, California. We will be hosting speakers from the biotechnology and pharmaceutical industries, and we will focus on developing skills and strategies needed for launching careers in these sectors. Stay tuned for updates, and make sure to check https://www.rnasociety.org/junior-scientists/ for registration information.

Finally, thanks again to our workshop participants- your testimonials were a fantastic resource. And thank you to our faculty mentors **Sam Butcher** and **Katrin Karbstein** for your guidance and support.

Take advantage of the opportunity to be an active member of the Society and make your voice heard. Be a member of the Junior Scientist Committee!

Email: junior_scientists@rnasociety.org
Sign up for the Junior Scientist listserv.
Website: https://www.rnasociety.org/junior-scientists/
Facebook: https://www.facebook.com/RNASocietyJuniorScientists/
LinkedIn: RNA Society Junior Scientists (https://www.linkedin.com/groups/8152215)
Twitter: @jrRNAscientists

Chairman of the Meetings Committee
Benoit Chabot

First, I want to congratulate the organizing team for our recent meeting in **Prague** (**Andrea Barta, Rachel Green, Ronald Micura, Yukihide Tomari** and **Christopher Lima and Petr Svoboda**). With 1000 participants, the meeting was a huge success with excellent and exciting science presented in a spectacular and inspiring environment. The **2018 RNA Society meeting** is already being prepared with **Adrian Ferré-d'Amaré** leading the troop for **Berkeley, California (**May 29 to June 3, 2018 at UC Berkeley). His team includes **Anne Ephrussi, Atlanta Cook, Mihaela Zavolan** and **Don Rio.** The **2019 meeting** will be held in **Krakow, Poland** at the ICE Kraków Congress Centre (June 11 to 16, 2019). **Artur Jarmolowski** championed Krakow and **Witek Filipowicz** has kindly and enthusiastically accepted to act as lead organizer for this meeting.

Our goal is to make decisions on venues three years in advance of the meeting as this is helpful when we have specific dates in mind and are competing for popular venues. Accordingly, we had presentations in Prague for the 2020 slot, and I am happy to report that the board has approved the recommendation of the Meetings Committee for **Vancouver, Canada** as the venue for the **25th RNA Society meeting in 2020** (May 26-31). Moreover, my committee has recommended that the **RNA Society meeting** be held in **Asia** in **2021**. Details about specific venues will be collected in order to take a decision for 2021 in Berkeley next May.

I am grateful to members of the Meetings Committee for their efficient contributions in the often difficult task of selecting continents, venues and organizers for our meetings. Members of this committee now include **Markus Bohnsack, Michelle Hastings, Shinichi Nakagawa, Marie Öhman, Renée Schroeder, Erik Sontheimer** and three new members: **Katrin Karbstein, Karla Neugebauer** and **Yukihide Tomari**. My sincere thanks go to **Sam Butcher, Mikiko Siomi,** and **Melissa Jurica** for their much appreciated previous service to the committee.

As always, we welcome suggestions from members willing to champion their institution or city as possible venues. Please contact me at Benoit.Chabot@USherbrooke.ca
Benoit Chabot, Chair of the Meetings Committee, Université de Sherbrooke

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Future RNA Society meetings

RNA 2018: The 23rd Annual Meeting of the RNA Society
May 29 to June 3, 2018
University of California, Berkeley, Berkeley CA, USA

RNA 2019: The 24th Annual Meeting of the RNA Society
June 11 to June 16, 2019
ICE Kraków Congress Centre Krakow, Poland

RNA 2020: The 25th Annual Meeting of the RNA Society
May 26 to May 31, 2020
Vancouver Convention Centre, Vancouver, BC, Canada

Society initiatives that enhance your membership benefits

Early & Mid-Career Awards

The RNA Society seeks nominations for two annual awards, to be presented at the 2018 annual meeting of the RNA Society in Berkeley. The winners will have the opportunity to give a short talk at the RNA meeting where the award is presented. Apply Online!

RNA Society Early Career Award

Eligible recipients will be within their first 10 years as an independent investigator as of July 1, 2018.
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.

RNA Society Mid-Career Award

Eligible recipients will be within their first 20 years as an independent investigator as of July 1, 2018.
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.

Nomination materials

Nominators must be a member of the RNA Society. Self-nominations are encouraged. Nominations must include a complete CV of the candidate, and a letter of nomination that clearly states the single important discovery or summarizes the extended portfolio of work to provide an overview of the qualifications of the candidate.

Nomination packages must be submitted by September 15th, 2017 on line, **here**.

The RNA Society/Scaringe Young Scientist Award

The RNA Society/Scaringe Young Scientist Award was established to recognize the achievement of young scientists engaged in RNA research and to encourage them to pursue a career in the field of RNA. The award is open to all junior scientists (graduate students or postdoctoral fellows) from all regions of the world who have made a significant contribution to the broad area of RNA. The award is not restricted to authors who have published in the RNA Journal, although it is restricted to active RNA Society members (join now!). The prize will recognize one outstanding graduate student and one postdoctoral fellow based on their research accomplishments to date, a 1000-1500 word essay describing their scientific contributions to RNA research, and a 500-word abstract for a review in their field of RNA research. Apply Now on the RNA Society web site.

Prizes:
The winners' names will appear in the abstract book and their expenses associated with attending the meeting will be reimbursed. The winners will receive a cash prize and a one-year membership to the RNA Society that includes a subscription to the journal RNA. By accepting the prize, the winner agrees to write a minireview or review for RNA. The review can be written solely by the winner or in collaboration with their advisor.

Only completed applications received by **September 15, 2017** will be considered.

From the desk of Membership Chair

Kristian Baker

I have three exciting pieces of news to share with you.

First, I am delighted to report that membership in the RNA Society is at an all-time high…with over 1600 members! Thank you for your support of the Society. Your response to our efforts to attract new members and to ensure that our current members find benefit from participation in the Society has been overwhelming!

You and your colleagues represent the finest and most talented scientists and trainees in the field of RNA and I urge you to take advantage of your membership to network with these individuals (at the annual meeting, through local events, on social media, or by individual contact). Working together is the best way to enhance professional development and cultivate new and exciting research collaborations and discoveries!

Second, I would like to share with you some of the outcomes and the tremendous feedback we received from our **RNA Salon** initiative launched last fall. As you know, this initiative to sponsor local, RNA science-based events was conceived as a way to promote year-long interactions between RNA researchers with the goal of enhancing communication and training opportunities in RNA research and advancing the professional development of RNA scientists. We couldn't be more pleased with the participation and your response to this initiative:

- ☑ The RNA Society provided $1,000 USD in sponsorship to support 29 **RNA Salon** events that were housed in various academic institutions worldwide – including the US/Canada (17), Europe (7), South America (3) and Asia/Australia (2).
- ☑ The RNA Society teamed up with Lexogen, who provided $500 USD in additional funds to select RNA Salons.
- ☑ Participation for all RNA Society-sponsored **RNA Salon** events over the year topped 3,000 RNA researchers!
- ☑ **RNA Salon** funding supported internal and external seminar series, journal clubs, daylong RNA symposia, collaborative research meetings, teleconferences, and more.
- ☑ While some **RNA Salon** programs were new, many built on existing clubs or activities. Your feedback told us that RNA Society support was central in the expansion of these activities, engagement of a greater number of participants, and increased awareness and excitement for your events.

Based on your overwhelming response, the RNA Society is pleased to announce continuation of the **RNA Salon** program for 2017/2018. **Ute Kothe** (University of Lethbridge, Alberta, Canada), who was instrumental in the success of the program last year, will be leading this year's efforts. Please see our 'Call for Applications' on the next page for more information or contact Ute (RNASalon@rnasociety.org) if you have questions.

Third, but certainly not least, I am excited to announce a new membership initiative starting in 2018. In an effort to recognize and highlight the outstanding lives and accomplishments of our members, each month we will profile on the RNA Society website two Society members – one Full member and one Student/Post-doctoral Fellow member – under the new **Member Spotlight Series** (see p.19). Membership Committee member, **Olivia Rissland** (University of Colorado at Denver) will head-up this project, and we are looking for individuals to assist in writing Spotlight profiles and for suggestions/nominations of Society members that have interesting stories that would be of interest to our membership. Please see our announcement in this newsletter for information and keep watch for our first profiles in January!

Once again, thank you all for your support of the RNA Society and for all those who participated in the annual meeting in Prague. I look forward to the upcoming academic year and our continued growth, interaction, and collaboration.

All the best – Kristian

RNA SOCIETY

MEMBER SPOTLIGHT SERIES

Starting January 2018, the Membership Committee of the RNA Society is launching a new member initiative...

The Member Spotlight Series

Each month, two of our outstanding Society members—one Full member and one Student/Post-doctoral member—will be highlighted on the RNA Society website and via social media.

Learn more about your fellow RNA Society members—their research, career trajectory, and favorite past-times. And discover what's been key to their success!

Volunteer!

ENJOY WRITING?

We are looking for student, post-doc, or faculty volunteers to work with us during the year and to help interview and write member profiles.

It's a great opportunity to connect with fellow RNA Society members, hone your communications skills, and take part in shaping our Society!

For more information, contact Olivia Rissland at RNASpotlight@rnasociety.org

RNA Salons
Call for Application

Dear RNA researchers,

Want to start a new RNA club or expand your current efforts to promote communication and collaboration between local RNA scientists?

The RNA SOCIETY wants to help you!

RNA Salon sponsorship is available for the 2017/2018 academic year to support activities involving researchers with diverse expertise & interests in RNA science

Apply for RNA Salon sponsorship today:
Applications due Sept 1st 2017

For more information and detailed application guidelines, please contact **Ute Kothe** at:
RNASalon@rnasociety.org

"The Salon initiative is a way to bring us together and excite our students and post-docs."

"It is prestigious to participate in programs organized under the supervision of the RNA Salons, supported by the RNA Society."

"The RNA Salon award gave an identity boost for the local RNA researchers as being part of a larger community."

Quotes are taken from a survey of RNA Salon organizers in May 2017

Thank You, Volunteers

The RNA Society both survives and thrives because of the efforts of our many volunteers. We hire out some of our activities (to FASEB, Cold Spring Harbor Laboratory Press, and others), but the key creative and decision-making activities performed 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 out anyone.

Committees and Committee Chairs

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

- **Michael Zuker** is our Chief Financial Officer. He acts as the interface with our business office at FASEB, requests and approves payments for Society expenses, oversees the investment committee, and generally ensures that we stay on track financially. Mike is newly installed in the job this year.
- **Benoit Chabot** is our Meetings Committee Chair. 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 2021 somewhere in Asia. He is assisted this year by a meetings committee that includes: **Markus Bohnsack, Michelle Hastings, Katrin Karbstein, Shinichi Nakagawa, Karla Neugebauer, Marie Öhman, Erik Sontheimer, Yukihide Tomari, and Brenda Peculis (Secretary, ex officio)**.
- **Kristian Baker** is the Chair of our Membership Committee. She works 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–RNA Salons–with **Ute Kothe** to facilitate communication and training opportunities in RNA research.
- **Gianpiero Di Leva** is the new Chair of our Business Development Committee. He 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. Gianpiero has been in position for only six months, but is already very active in establishing new connections.
- The Nominating Committee 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: **Elena Conti, Soo-Chen Cheng, Yaron Shav-tal, and Gene Yeo**. An excellent field of candidates was identified and persuaded to run for office.
- The Scaringe Award Committee 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 **Sarah Woodson**, 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 Prague was a great success. The RNA 2018 organizers are now hard at work preparing for next year's conference in Berkeley.

RNA 2017 Organizers (Prague):	**Andrea Barta, Rachel Green, Christopher Lima, Ron Micura, Petr Svoboda, and Yukihide Tomari**
RNA 2018 Organizers (Berkeley):	**Adrian Ferré-D'Amaré, Atlanta Cook, Anne Ephrussi, Don Rio, and Mihaela Zavolan**

Conference Volunteers

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

- Each year the conference organizers rely heavily on the session and workshop chairs 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 chairs did an excellent job in these tasks. Thanks to: **Y Stefan Ameres, Kristian Baker, Maria Carmo-Fonseca, Lingling Chen, Michael Jantsch, Martin Jinek, Jeffrey Kieft, Adrian Krainer, Kristen Lynch, Javier Martinez, Yongsheng Shi, Roland K. O. Sigel, David Stanek, Stepanka Vanacova, and Daniel Wilson.**

- The keynote speakers who agreed to give their time and a fascinating lecture are also greatefully acknowledged. They include: **Adrian Krainer, Marina Rodnina, Robert Singer, Eric Sontheimer, and Juan Valcarcel**

- 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 63 volunteers, and lead by conference organizer **Christopher Lima**. This year's judges were: **Ruslan Afasizhev, Olga Anczukow, Jean Beggs, Andy Berglund, Edouard Bertrand, Philip Bevilacqua, Giuseppe Biamonti, Markus Bohnsack, Giovanni Bussi, Sam Butcher, Javier Caceres, Zachary Campbell, Luca Cartegni, Guillaume Chanfreau, Lingling Chen, Andrzej Dziembowski, Milo Fasken, Adrian Ferre-D'Amare, Dragony Fu, Aaron Goldstrohm, Jörg Hartig, Michelle Hastings, Janosch Hennig, Tetsuro Hirose, Aaron Hoskins, Gyorgy Hutvagner, Akio Kanai, Katrin Karbstein, Rotem Karni, Bessie Kebaara, Sebastian Klinge, Ute Kothe, Claudia Kutter, Markus Landthaler, Konstantin Licht, Peter Josef Lukavsky, Alexandra Lusser, Stefano Marzi, A. Gregory Matera, Akila Mayeda, Joel McManus, Oliver Muehlemann, Kotaro Nakanishi, Mary O'Connell, Norbert Polacek, Thomas Preiss, Aiming Ren, Olivia Rissland, Alexander Serganov, Chanseok Shin, Martin Simard, Haruhiko Siomi, Katja Sträßer, Hitomi Tsuiji, Leos Valasek, Stepanka Vanacova, Nils Walter, Yue Wan, David Weinberg, Jeffrey Wilusz, Jo Ann Wise, Bojan Zagrovic, and Marek Zywicki.**

- The Mentoring 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** 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.

Grad Reps	**Allison Didychuk and Fadi Marayati**
Post-doc Reps	**Petra Beznosková and Kristopher Brannan**
Faculty Advisors	**Katrin Karbstein and Sam Butcher**

Newsletter Editor

Our RNA Society Secretary, **Brenda Peculis**, also has been the Newsletter Editor 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.
Juan Valcarcel, President; **James McSwiggen**, CEO**; Sarah Woodson,** Past-President; **Michael Zuker**, CFO; **Brenda Peculis**, Secretary; Board Members **Gloria Culver, Kathy Hall, Matt Hentze, Haru Siomi, Chris Smith,** and **Beth Tran**

Thank you Sponsors of RNA 2017

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PRA G

Wow Prague Convention Bureau

Reports from recent RNA meetings supported by the Society

The Bermuda Principles – Impact on Splicing
February 28th – March 2nd, 2017
Southampton, Bermuda

The event saw seven keynote speakers including Benoit Chabot (Uni. of Sherbrooke), Benjamin Blencowe (Uni. of Toronto), Jon Staley (University of Chicago), Eduardo Eyras (PFU, Barcelona), Andrew Newman (University of Cambridge), Jamal Tazi (IGM, Montpellier) and Stephane Richard (McGill); three invited speakers including Sarah Assmann (Penn State), Silvia Buonamici (H3 Biomedicine) and Xavier Roca (Nanyang Technological University, Singapore) and 17 oral presentations over three days. The conference played host to graduate, undergraduate and Bermuda secondary students. Conference attendees declared the highlight to be the special hearing of the Bermuda Youth Parliament, who engaged in an impressive ethics debate on whether geneticists should be profiteers or philanthropists.

Thanks to the RNA Society, 3 travel fellowships were awarded. The PhD award was given to **Mr Daniel Comiskey** from The Ohio State University. The post-doc award was given to **Dr Dawn O'Reilly** from The University of Oxford. Finally the Bursary award was given to **Dr Sohail Muhammad** from The University of Sherbrooke.

The conference organizers were Carika Weldon (De Montfort University, Leicester), Cyril Dominguez (Uni. of Leicester) and Isabelle Behm-Ansmant (CNRS-Lorraine). Local media coverage of the conference can be seen here.

Gordon Research Seminar and Conference on RNA Editing: Biology and Mechanisms of RNA and DNA Modification
March 11th – 17th, 2017
Ventura, California

The 4th GRS on RNA Editing took place in Ventura, California and immediately proceeded the GRC, where a record number of more than 190 attendees came together to discuss and research at the forefront of editing and modification of nucleic acids. The GRS provided a dedicated forum for graduate students (33) and postdoctoral fellows (15) to present and discuss research and network with peers before participating in the GRC. Specifically, the GRS provided opportunities for ten oral and fifty poster presentations of research as well as nine platform experiences (eight discussion leaders and one chair). For an exciting new opportunity this year, the two best oral presentations from the GRS were decided based on a democratic election by peers and these individuals - Yuru Wang a graduate student in the lab of Dr. Peter Beal at UC-Davis and Dr. Erin Borchardt a postdoctoral fellow in the lab of Dr. Wendy Gilbert at MIT - presented their work orally at the GRC. The oral presentations at the GRC were divided into nine sessions, which were organized to bring together researchers working on different systems with common areas of interest in the following broad areas: Physiological Functions for Editing and Modification; Neuro-Editing; Editing in Immunity; Epitranscriptomics; RNA and DNA Modifications in Cancer; Molecular Mechanisms of Editing Machines; Regulation of Editing and Modification; Genome and Transcriptome Engineering Technologies; and New Frontiers in Editing. This year had a record number of 66 oral presentations, nearly one-third of which were selected from abstracts. In addition to the oral research presented, for the first time, the GRC had a one hour "Power Hour" session that focused on career development and was chaired by Dr. Jonatha Gott of Case Western Reserve University. Together these experiences, along with the four poster sessions, exposed trainees to cutting-edge science and provided multiple platforms for discussing research results and emerging ideas with leaders in the field.

We are very grateful to the support of the RNA Society, who provided funds to support registration of several graduate students and postdoctoral fellows to attend the GRS. With the support of RNA Society as well as the National Science Foundation and a handful of academic and corporate sponsors, the meeting organizers could provide complete registration costs for all 49 trainees to attend the GRS.

2017 Ribowest
May 21st – 24th, 2017
Vancouver, British Columbia, Canada

The 13th Annual 2017 Ribowest meeting was held for the first time in Vancouver, Canada at the University of British Columbia. Feature keynotes were presented by Tim Stasevich (Colorado State University) and Jean-Pierre Perreault (Universite de Sherbrooke). The Ribowest meeting was attended by 140 participants (largest for Ribowest) from Western Canada and USA and attracted attendees from
Eastern USA. The meeting featured 30 selected talks from abstracts and 56 posters covering a wide range of RNA topics.

Thanks to the support of RNA Society, 5 travel awards were selected on a competitive basis. (left to right) Devin Bendixsen (Boise State University), Dora Capatos (University of Lethbridge), Jeremy Quiroga (University of Lethbridge), Ewan McRae (University of Manitoba) and Spyros Karaiskos (Rutgers University, not in photo). Awards were presented by the 2017 Ribowest organizers Eric Jan (far left), Gregg Morin and Peter Unrau (far right).

12th Microsymposium on Small RNAs
May 24th-26th, 2017
Vienna, Austria

The 12th Microsymposium on Small RNAs is an annual meeting hosted at the Vienna BioCenter (VBC) which consistently attracts scientists from all over the world. Initiated by Javier Martinez shortly after he moved to Vienna, the Microsymposium is now co-organized by group leaders from all four institutes at the VBC. From left to right: Luisa Cochella (IMP), Stefan Ameres and Julius Brennecke (IMBA), Michael Nodine (GMI) and Javier Martinez (MFPL).

In recent years, the meeting has expanded its scope, and while it continues to be mostly focused on small RNA biology, it now includes presentations on other exciting aspects of RNA biology. The program this year consisted of 32 talks ranging from small RNAs in defense mechanisms to development and differentiation, new technologies for small RNA analysis, mechanistic studies of the link between small RNAs and chromatin, as well as sessions on long non-coding and circular RNAs and RNA modifications.

In addition to the exciting science, the spirit of the Microsymposium is collegial, open and supportive, with a strong emphasis on promoting young scientists. Beyond the outstanding line-up of international speakers (many of them junior group leaders), the highlights were the talks from the 3 invited postdocs and 9 invited PhD students.

The PhD student talks are selected from the highly competitive submitted abstracts and are part of a PhD Workshop, typically sponsored by the 4 institutes that make up the VBC. Thanks to the support from the RNA Society, this year we could expand the number of participants in the PhD workshop to 9 students from 3 different continents. From left to right: Alexandra Dallaire, Alicia Rogers, Florian Dunker, Stefan Oberlin, Sean McGeary, Toni Beltran, Kazuhiro Sakakibara, Baekgyu Kim and Chiara Alberti (whose talk was voted as the best of the workshop by all invited speakers).

This year, the Microsymposium had over 200 participants and more than 60 posters, the meeting was hosted at the new IMP lecture hall, which was filled for the whole three days of the meeting and left everyone with the same feeling as every year so far: “this was the best Microsymposium yet!”

Nucleic Acids and Immunity
June 4th -7th 2017
Brno, Czech Republic

The second conference in a series of three on Nucleic Acids and Immunity was held in Brno, in the Czech Republic. This was one of the satellite meetings of the RNA Society Conference in Prague. The aim of these conferences is to bring together researchers working on nucleic acids with those interested in sensors and innate immunity. This conference had approximately 100 attendees from the USA, Europe and Japan. This conference series is funded by European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement No 621368 to the ERA Chair.

The keynote speaker was Shizuo Akira from Osaka University, Japan who is the world's leading researcher in innate immunity. The conference organizers were Liam Keegan and Mary O'Connell and they are very grateful to the RNA Society for providing sponsorship for 3 posters awards to Rachel Ancar, University of Colorado, USA, Maria Zlobina CEITEC, Masaryk University, Czech Republic and Kim Chun, University of Cologne, Germany. The awards were presented by the CEO of the RNA Society, Jim McSwiggen who also attended this conference.

Gordon Research Symposium & Conference on Nucleic Acids
June 4th – 9th, 2017
Biddeford, Maine, USA

The Nucleic Acids Gordon Research Conference (GRC) took place June 4-9 at the University of New England in Biddeford Maine, preceded by a one day associated Gordon Research Seminar (GRS) in which students and postdoctoral fellows presented and exchanged their latest results on all aspects of Nucleic Acids Biology and Chemistry. The Nucleic Acids GRC featured a number of outstanding talks from leading RNA labs, including opening night talks by the keynote speaker **Jennifer Doudna** (UC Berkeley/HHMI), followed by **Ron Breaker** (Yale University/HHMI); and closing night talks by **Adrian Krainer** (Cold Spring Harbor Laboratory) and **Chris Lima** (Memmorial Soan Kettering Institute, New York). In addition, there was a talk by **Chris Faehnle** (postdoctoral fellow, lab of Leemor Joshua-Tor, Cold Spring Harbor Laboratory/HHMI), whose registration was partially supported by funds from the RNA Society.

The GRS (chaired by **Lu Han** (University of Rochester) and **Yuqian Shi** (Duke University), featured keynote talks from **Karen Cone** (Program Director, Division of Molecular & Cellular Bioscience, National Science Foundation) and **Jane Jackman** (Ohio State University), three platform sessions with a total of 19 talks by graduate students and postdoctoral fellows, and two poster sessions. Funds from the RNA Society provided partial registration support for the following graduate students and postdoctoral fellows, all of whom gave talks, chaired sessions, or chaired the meeting: **Tien-Hao Chen**, grad student, lab of Venkat Gopalan, Ohio State University; **Xieyang Guo**, grad student, Institut de Génétique et de Biologie Moléculaire et Cellulaire, CERBM; **Lu Han**, grad student, lab of Eric Phizicky, University of Rochester; **Nathan Howell**, grad student, lab of Jane Jackman, Ohio State University; **Agnes Karasik**, grad student, lab of Markos Koutmos, Uniformed

Services University of the Health Sciences; **Quan Lam**, grad student, lab of Hong Jin, University of Illinois at Urbana-Champaign; **Weihan Li**, grad student, lab of Peter Walter, University of California, San Francisco; **Sneha Rath**, grad student, lab of Alexei Korennykh, Princeton University; **Jiyu Wang**, grad student, lab of Beth Grayhack, University of Rochester; **Yicheng Long**, postdoc, lab of Thomas Cech, University of Colorado Boulder/HHMI; **Andreas Moor**, posdoc, lab of Halev Itzkovitz, Weizmann Institute of Science; **Ammar Naqvi**, postdoc, lab of Andrei Thomas-Tikhonenko, Children's Hospital of Philadelphia; **Bhalchandra Rao**, postdoc, lab of Roy R. Parker, University of Colorado Boulder/HHMI; **Eric Strobel**, postdoc, lab of Julius B. Lucks, Northwestern University.

EMBO Conference on Eukaryotic RNA Turnover
July 10th - 13th, 2017
Keble College, Oxford, UK

The EMBO Conference on Eukaryotic RNA Turnover was held in Keble College, Oxford, UK from the afternoon of the 10th July to lunchtime on the 13th July, 2017. This meeting was the second in an EMBO Conference Series, which grew out of an informal biennial series starting in 2003, and has generated substantial interest among participants in the RNA field. The conference was supported by the European Molecular Biology Organisation (EMBO) and received sponsorship from the RNA Society and the UK Genetics Society as well as industrial sponsors. The Conference was organised by Professor Chris Norbury (Sir William Dunn School of Pathology, University of Oxford) with the Co-Organisers Professor Sarah Newbury (Brighton and Sussex Medical School, University of Sussex) and Professor Cecilia Arraiano (Instituto de Tecnologia Química e Biológica, Universidade Nova de Lisboa, Portugal).

The focus of the Conference was on RNA turnover, with an emphasis on its relevance to human disease. Presentations spanned a wide range of topics including the repression of ribonucleases by flaviviruses (including Zika virus), new information on the exoribonuclease Dis3L2, which represses cell proliferation, RNA binding proteins and their role in inflammation and trypanosomal RNA degradation systems. The talks were complemented by 'flash' presentations as well as lively poster sessions where early career scientists had an extra opportunity to present their work. Two of the highlights of the meeting included a banquet dinner in the dining hall at Keble College and after dinner entertainment by the IMMposters, a local band of biomedical scientists. The meeting has already been highlighted as a great success; therefore another meeting in the series is planned for July 2019 in Montreal.

The RNA Society provided generous funding to support the travel for (pictured left of right) Shiladitya Chattopadhyay (Postdoc, Technion-Israel Institute of Technology, Israel), Katsutoshi Imamura (Postdoc, Chiba University, Japan), Toshimichi Yamada (Postdoc, University of Tokyo, Japan), Dounia Abaddi (Postdoc, NYU School of Medicine, United States), and Alexandra Goetz (PhD Student, University of California, San Diego, United States). The Organisers would like to thank all the participants for supporting a wonderful meeting.

2017 RNA Community Special Interest Group
Prague, Czech Republic
July 22, 2017

The 14th Special Interest Group meeting on RNA Biology (RNA COSI) was held July 22, 2017 in Prague, Czech Republic. As part of the annual International Society for Computational Biology meeting, the RNA COSI 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 RNA COSI 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 that covered advances and challenges of *in vivo* RNA structure determinations

(Yiliang Ding, John Innes Center, UK), novel insights into lncRNA splicing (David Staněk, Czech Academy of Sciences, Czech Republic), single cell genomics and novel experimental and computational tools to analyze the impact of RNA on cell homeostasis.

Michelle Wu, PhD student at Stanford University, **Angela Garibaldi**, PhD student at the University of California Irvine, and **Gabrielle Deschamps-Francoeur**, PhD Student at the Université de Sherbooke received an RNA Society -sponsored travel fellowship.

Two RNA Society sponsored poster prizes were awarded to **Kira Mourão**, University of Dundee, United Kingdom for **"**Detection and mitigation of spurious antisense transcripts in RNA-Seq experiments" (pictured right with Meeting Co-organizer, Eduardo Eyras) and **Lorena de La Fuente** from Ana Conesa's lab at the Centro de Investigación Príncipe Felipe, Valencia, Spain for **"**T2GO: Deciphering the functional and regulatory impact of differential splicing". The organizers thank the RNA Society for their generous support of the RNA COSI 2017.

EMBO Conference on RNA Localization and Local Translation
July 23rd -27th, 2017
Barga, Italy

The 2017 EMBO Conference on RNA Localization and Local Translation, organized by Anne Ephrussi, Elena Conti and William Theurkauf, took place at the end of July in Barga, on the Tuscan hills near Pisa. This conference series was initiated two decades ago by Drosophila developmental biologists and over the years has incorporated neurobiologists studying localized transport and translation in neurons. More recently, it has attracted many biochemists and biophysicists, in particular scientists visualizing protein-RNA interactions with single-molecule and structural approaches. The 2017 meeting included sessions on RNP granules and dynamics, on RNA processing, transport and translational control mechanisms, on non-coding RNAs and RNA scaffolds, on local translation in developmental decisions and synaptic plasticity. The schedule also included two general discussions where emerging and/or controversial themes were spontaneously brought up and discussed and another session where students and postdocs could ask career questions to PIs in academia and industry.

The conference was a success. The atmosphere was relaxed, with all the speakers presenting unpublished results and with an active audience asking questions from many different angles. The organizers and most senior PIs who regularly attend the meeting were given the option of chairing, rather than speaking, in order to increase the number of new speakers at the meeting. Many of the talks were indeed from scientists that were new to this conference series, and who brought new ideas and biological questions. Other talks, from scientists who had participated in this conference series before, in many cases as PhD and postdocs first and now as PIs, discussed results from projects and collaborations originated from the previous meeting/s, a testament of the cross-stimulating and open environment that is traditional of this meeting. As many participants noticed and commented on, the meeting included a high proportion of early career PIs and female PIs as speakers. Last but not least, there were many excellent talks from postdocs and students selected from the abstracts, as well as one-slide flash-talks to highlight posters.

The poster sessions were held in the afternoon and were very well attended. Rather than a few PIs selecting the best poster presentations, every participant casted their vote on their preferred poster. The generous support from the RNA Society was used for awarding the three student/postdocs whose poster presentations received the most votes (pictured). **Mohammad Mofatteh** (LMB, UK; far right) introduced the Drosophila embryonic nervous system as a new model for studying mRNA trafficking. **Julie Lin** (Cambridge University, UK; middle) used live tracking of endogenous mRNAs and found that transcripts encoding mitochondrial proteins are locally translated on late endosomes. **Tejaswini Sharangdhar** (Munich University, Germany; left) identified the role of a 3' UTR intron in mRNA localization.

Upcoming RNA meetings of interest

2017 RNA Biology Symposium
September 18th, 2017
Jerusalem, Israel

The 2017 RNA Biology Symposium organized in memory of Professor Yossi Sperling will be held at the Hebrew University, Hadassah Medical Center on September 18th, 2017. Please join Keynote Speakers - Tom Cooper (Baylor College of Medicine), Javier Caceres (MRC Institute of Genetics & Molecular Medicine) and Maria Carmo-Fonseca (University of Lisbon), and other invited speakers for a day of outstanding RNA biology.

Abstract deadline is August 10th, 2017. Please contact the Organizing Committee – Rotem Karni (rotemka@ekmd.huji.ac.il), Gil Ast (gilast@post.tau.ac.il), and Yaron Shav-Tal (Yaron.Shav-Tal@biu.ac.il) – for more information.

18th Annual RiboClub Meeting
September 25th – 28th, 2017
Orford, Quebec, Canada

RNA scientists in Sherbrooke have organized the *18th RiboClub Meeting* to be held in Orford at Hotel Chéribourg (in the vicinity of Sherbrooke, Quebec, Canada). This year the meeting is organized in partnership with the Swiss National Center of Competence in RNA & Disease.

The program includes keynote lectures by **Peter Sarnow** and **Jack Szostak**, poster sessions and invited speakers (Omar Abdel-Wahab, Simon Alberti, Juan Alfonzo, Frédéric Allain, Kristian Baker, Martine Collart, Elena Conti, Catherine Dargemont, Andrzej Dziembowski, Helge Grosshans, Chuan He, Martin Jinek, Juan Mata, Stephen McKnight, Tom Misteli, Melissa Moore, Oliver Mühlemann, Norbert Polacek, Magdalini Polymenidou, Thomas Preiss, Peter Scheiffele, Robert Schneider, George Stoecklin, Juan Valcarcel, Gabriele Varani) on plenary sessions that will include ribosome biogenesis and diversity, co-transcriptional RNA processing, RNP structure and function, RNA regulation in prokaryotes, detection and function of RNA structural motifs, splicing biodiversity and detection and function of small nucleolar RNA. The flavor of the year is "**RNPs: the Good, the Bad and the Ugly**. Additional talks will be selected from submitted abstracts.

Registration is accepted until September 2nd, 2017 at
http://registration.riboclub.org/ocs/index.php/rcam/2017/schedConf/registration

Looking forward to welcoming you in Orford next September. Benoit Chabot (for the organizing commmittee: Sherif Abou Elela, Raymund Wellinger, Brendan Bell, François Bachand, Jean-Pierre Perreault, Michelle Scott, Eric Massé, Daniel Lafontaine, Martin Bisaillon)

Nineteenth Annual Rustbelt RNA Meeting – RRM 2017
October 13th & 14th, 2017
Indianapolis, Indiana, USA

The primary mission of the Rustbelt RNA Meeting (RRM) is to provide a showcase for research performed by undergraduate, graduate and postdoctoral trainees. For the 2017 meeting, the organizers will continue the long-standing tradition of selecting abstracts submitted by junior scientists for oral presentation; the work of other trainees and additional attendees will be highlighted at a poster session. Presentation topics will include RNA-protein complexes; non-coding RNAs and RNA dependent regulation; RNA nanotechnology and RNA-based therapeutics; and Bioinformatics and Systems Biology of RNA.

Keynote lecturer will be **Professor Christopher Burge** (Massachusetts Institute of Technology) who has made exceptional contributions to the field of Computational Biology. This year the meeting will also include two

Computational Workshops ("Practical Guide to Using RNA structure for RNA Secondary Structure Modeling" and "Practical Guide to Computational Workflows for Analyzing and Annotating CLIP-sequencing datasets") and a Career Mentoring Lunch.

Additional information can be found at www.rustbeltrna.org or by contacting the meeting Co-Chairs: Sarath Chandra Janga (Indiana University Purdue University Indianapolis) and Timea Gerczei (Ball State University) or Co-Vice Chairs: Guramrit Singh (The Ohio State University) and Auinash Kalsotra (University of Illinois at Urbana-Champaign)

Registration is scheduled to open August 24th and is limited to 300 participants - so early registration is recommended!

The Biology of RNA-Protein Complexes
October 11th-14th, 2017
Regensburg, Germany

The recent advances in the unbiased identification of RNA-binding proteins and the deep sequencing of transcriptomes have dramatically expanded the two classes of molecules that compose RNPs: RNAs and RBPs. In addition, advances in structural biology, elaborated biochemical assays and single molecule analysis allow more and more mechanistic insights into the function of RNPs. It is now, that experts from various disciplines of RNA biology have to meet to transform the 'parts lists' of RNPs into a better understanding of how RNPs assemble, how they are structured and how they exert function. The proposed conference program aims to provide a broad perspective of the individual fields in RNP biology to allow their integration into fundamental and comprehensive models.

Numerous invited speakers will deliver talks that will provide the framework for the individual sessions which will be completed by talks selected from the submitted abstracts - preference will be given to early stage researchers. Invited speakers include (in alphabetical order) Nenad Ban (ETH Zurich), Susan Baserga (Yale School of Medicine), Carlos Bustamante (UC Berkeley), Sven Diederichs (DKFZ Heidelberg), Stefanie Dimmeler (Goethe-University Frankfurt am Main), Utz Fischer (University of Würzburg), Steven Hahn (Fred Hutchinson Cancer Research Center), Alan Hinnebusch (National Institute of Health, Bethesda), Ed Hurt (University of Heidelberg), Leemor Joshua-Tor (Cold Spring Habor Laboratory), Reinhard Lührmann (Max-Planck-Institute for Biophysical Chemsitry), Oliver Mühlemann (University of Bern), Christoph Müller (EMBL Heidelberg), Michaela Müller-McNicoll (University of Frankfurt), Evgeny Nudler (New York University), Roy Parker (University of Colorado), Vicente Pelechano (Karolinska Institute, Stockholm), Peter Sarnow (Stanford University), Michael Sattler (Technical University München), Cynthia Sharma (University of Würzburg), Nahum Sonenberg (McGill University), Dylan Taatjes (University of Colorado, Boulder), Jernej Ule (University College London), Štěpánka Vaňáčová (CEITEC Masaryk University), Jörg Vogel (University of Würzburg), Finn Werner (University College London), and Daniel Wilson (University of Hamburg).

The conference will take place in the beautiful heart of the old town of Regensburg, Germany, a UNESCO cultural heritage site. Deadline for registration and abstract submission is August 31st, 2017. More information can be found at the conference website: www.conference2017-sfb960.de.

2017 Symposium on RNA Biology XII: RNA Tool and Target
October 19th & 20th, 2017
University of North Carolina at Chapel Hill

The RNA Society of North Carolina welcomes you to the 2017 Symposium on RNA Biology XII: RNA Tool and Target. This symposium will bring together a prominent set of RNA scientists to discuss the latest achievements in RNA research. The conference will feature talks from national and international RNA scientists as well as selected talks from submitted abstracts. Our keynote speakers are Marlene Belfort, Douglas Black and Eric Westhof, and we hope you will submit an abstract and share a session with them. The symposium spans the breadth of RNA research from fundamental structural and biological studies to the applications of RNA in treating human disease. Information regarding registration and abstract submission will soon be announced. In the meantime, mark your calendars, we look forward to seeing you at the meeting!

More information and registration/abstract submission links can be found at http://ncrna2017.web.unc.edu

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Mobile Genetic Elements and Genome Plasticity
February 11th – 15th, 2018
Santa Fe, New Mexico, USA

Keystone Symposia will be holding its second conference on "Mobile Genetic Elements and Genome Plasticity" next February 11-15, 2018 at the Eldorado Hotel in Santa Fe, New Mexico. Transposable elements are potent sources of genetic variation that also regulate the expression of large gene networks and are increasingly recognized to play a role in diseases such as cancer and neurodegeneration.

Organized by Drs. **Marlene Belfort** of the University of Albany, SUNY, **Evan E. Eichler** of the University of Washington, **Henry L. Levin** of the National Institutes of Health and **Lynne E. Maquat** of the University of Rochester Medical Center, the four-day conference seeks to forge stronger ties between the field of transposon biology and the field of genome analysis and genome editing.

Opening the conference will be a keynote address by Dr. Emmanuelle Charpentier on "*Limitation of Horizontal Gene Transfer by CRISPR-Cas Systems in Bacteria: Mechanisms and Plasticity."* This will be followed by four days of plenary sessions, workshops and poster sessions, as well as free time for recreation and collaboration-building in the historic city of Santa Fe or the surrounding mountains. Speakers include Drs. Rusty Gage, Robert Martienssen, David Sabatini, Joanne Wysocka and Feng Zhang.

Abstracts submitted by the **November 14, 2017** abstract deadline will be considered for short talks on the conference program in both plenary sessions and workshops. The discounted registration deadline (saving $200 on later fees) is **December 14, 2017** at midnight US Mountain Time. Through **October 14, 2017**, graduate students and postdoctoral fellows can apply for scholarships – one of which is being funded by the RNA Society – to attend the conference.

Further details can be found on the conference website at www.keystonesymposia.org/18B7. Don't miss this unique opportunity to hear from some of the leaders in this exciting field.

Bermuda Principles – Impact on Splicing 2018
February 21st – 25th, 2018
Southampton, Bermuda

The 2nd annual Bermuda Principles – Impact on Splicing meeting will be held the Fairmont Southampton Princess Hotel in Bermuda on February 21 – 25, 2018. The conference organizers are Carika Weldon (De Montfort University, Leicester), Cyril Dominguez (Uni. of Leicester) and Isabelle Behm-Ansmant (CNRS-Lorraine) and Eduardo Eyras (PFU, Barcelona). The event has six keynote speakers including Adrain Krainer (CSHL), Robin Reed (Harvard Medical School), Franco Pagani (ICGEB, Italy), Gil Ast (Tel Aviv University, Isreal), Tom Misteli (CCR, NIH), and Jean Beggs (Uni. of Edinburgh, Scotland) and four invited speakers including Stephen Rader (UBC, Canada), Jonathan Hall (ETH, Zurich), Steve Wilton (Murdoch University, Australia) and Zodwa Dlamini (MUT, South Africa).

The session topics include: Splicing mechanisms; RNA structures; RNA – protein structures; Bioinformatics; Splicing and disease; Links to transcription; Therapeutics and Commercialization. The remaining program is selected from the submitted abstracts and we strongly encourage graduate students and postdoctoral scientists to submit these for the opportunity to present.

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. The deadline for applications is October 20th, 2017.

All conference attendees will have the option to participate in public engagement mini-lectures about general science topics, delivered to local students, science teachers and healthcare practitioners. If you are interested in taking part in these public engagement mini-lectures, and/or have ideas about topics, please email eduardo.eyras@upf.edu or admin@bermudaprinciples.org.

Registration deadline is January 15th, 2018 (November 10th, 2017 for Earlybird rate of 10% off). To be considered for a talk or poster, abstracts must be submitted by November 10th, 2017. One must be registered before sending an abstract. More information can be found by contacting the chief organizer (carika.weldon@dmu.ac.uk or chairman@bermudaprinciples.org) or at the Bermuda Principles Conference website https://www.bermudaprinciples.org.

2018 International Ribosome Synthesis Conference
August 1st – 5th, 2018
Orford, Quebec, Canada

The next International Conference on Ribosome Synthesis will take place near Montreal at the Manoir des Sables in Orford, Quebec, Canada, **August 1-5, 2018**. Registration will open in March 2018. For more information, please check out the meeting website: http://ribosynthesis.riboclub.org.

This will be the eleventh conference in a series that has been organized every three years, alternating between Europe and North America. The three keynote speakers will be: **Ed Hurt**, University of Heidelberg, Germany, **Jamie Williamson**, The Scripps Research Institute, La Jolla, USA, and **John Woolford**, Carnegie Mellon University, Pittsburgh, USA.

The conference provides a unique scientific platform for groups working on many different aspects of ribosome biogenesis, including RNA polymerase I transcription, rDNA chromatin structure, rRNA maturation, ribosome assembly, formation of mature ribosome structure, rRNA quality control and degradation, nuclear export, snoRNPs, integration with cell division and metabolism, connection with diseases and insights into other nucleolar functions.

The Organizers are: Sherif Abou Elela (Université de Sherbrooke), Ute Kothe (University of Lethbridge), Denis Lafontaine (University of Brussels), Tom Meier (Albert Einstein College of Medicine, New York) and Joaquin Ortega (McGill University, Montreal).

Employment Opportunities

Two Ph.D. positions in circRNA biology available
Posted on July 20, 2017

We are looking for excellent and highly motivated young researchers to investigate the formation and functional role of circular RNAs in the mammalian system. These two positions are integrated in an EC-funded International Training Network (ITN) called cirRTrain (https://circrtrain.eu/), which focusses on circRNA biology. Research in circRTrain includes: biochemistry and computational biology, genetics; sequencing, imaging, RNA knockdown; CRISPR/Cas9; model systems like worm, fly, mouse, human; medical applications, biomarkers, new therapeutic strategies

Specifically, the two positions in the Bindereif group at the University of Giessen, Germany, are available immediately, for three years, and are for Ph.D. students working on the two projects (#5 / #6) described below.
http://www.uni-giessen.de/fbz/fb08/Inst/biochem/bindereif/Positions
Please send applications including motivation letter, your CV, transcripts of previous studies, and two names of references (as one single pdf) to:
Prof. Dr. Albrecht Bindereif
Institute of Biochemistry
Department of Biology and Chemistry
Justus Liebig University of Giessen
Heinrich-Buff-Ring 17
D-35392 Giessen
Germany
Tel: 49-641-99 35 420
FAX: 49-641-99 35 419
e-mail: albrecht.bindereif@chemie.bio.uni-giessen.de

Postdoctoral Positions Available

Posted on July 13, 2017

Postdoctoral positions are available in Dr. Junjie Guo's lab in the Department of Neuroscience at Yale School of Medicine. The Guo lab studies questions at the intersection between RNA biology and neuroscience. Currently, we are interested in the roles of mRNA and noncoding RNA structures in neural development and neurodegenerative diseases, taking a combination of computational, biochemical, genetic, and genomic approaches. For more information, please visit our website (www.guo-lab.com) or contact Junjie by email.

Start date is flexible and can be as early as September 1, 2017. Researchers with strong interest in RNA biology and neuroscience, regardless of their training background, are welcomed to apply. Expertise in any of the following areas is highly valued though not required: RNA biochemistry; Mouse/fly genetic models; In vitro and in vivo models of neurodevelopment; High-throughput sequencing; Advanced imaging techniques

Please email your application to jguo1766@gmail.com, including:
A cover letter describing your past training, research interests and career goals
A detailed CV
Contact information of referees

Postdoctoral Position Immediately Available

Posted on July 7, 2017

A postdoctoral position is immediately available in the lab of Fátima Gebauer to investigate the role of novel RNA binding proteins (RBPs) in cancer progression. Fátima Gebauer leads a team of motivated researchers working on RNA regulation and translational control in Drosophila and human cancerous cells. For more information about the group, please visit http://www.crg.es/fatima_gebauer. The position is available to determine the molecular mechanisms underlying the effects of selected RBPs in melanoma progression, with a special focus on those involved in translational control and metabolism.

Qualified individuals should be highly motivated, self-driven, independent, proficient in English and with a solid publication record. Experience in RNA regulation, metabolism, and standard molecular biology and tissue culture techniques is essential. Experience in animal handling and/or proficiency in manipulating high-throughput data desirable.

We offer work in a highly stimulating environment with state-of-the-art infrastructures, providing the successful applicant with unique professional career opportunities. The contract will have a maximum duration of 5 years, and a competitive salary based on professional experience.

Interested applicants, please contact Fátima Gebauer at fatima.gebauer@crg.eu, and include a CV, motivation letter and the contact details of 2 referees.

Postdoctoral Position Immediately Available

Posted on July 7, 2017

A postdoctoral position is immediately available in the Landthaler laboratory at the Max-Delbrück Center for Molecular Medicine in Berlin, Germany.

The main research interest of the lab is the regulation of gene expression by RNA-binding proteins. The objectives are to explore the connection between distinct cellular metabolic programs and regulation of gene expression at the posttranscriptional level. The aim is to identify metabolic pathways that modulate protein-RNA complexes, RNA structure and RNA modifications using high-throughput approaches.

Required qualifications are a PhD degree or equivalent with a documented background in RNA biology. Applications should be written in English, comprise of a cover letter with a brief statement of research interests, CV with a publication

list and contact information of at least two referees. Documents should be in PDF format and submitted via e-mail (markus.landthaler@mdc-berlin.de and sabrina.deter@mdc-berlin.de).

This position is a full-time, 24 month appointment with an opportunity for renewal based on performance and funding. Informal inquiries regarding this position are welcome.

Seeking Highly Motivated Postdoctoral Associates
Posted on July 7, 2017

The Meyer lab in the Department of Biochemistry at Duke University is currently seeking highly motivated postdoctoral associates who are interested in RNA biology. Studies in the lab are focused on understanding the role of RNA methylation in nervous system function, as well as elucidating the complex regulatory pathways that control RNA modifications. Individuals with experience in RNA biology, biochemistry, genetics, or neurobiology are especially encouraged to apply.
Requirements:
– PhD in a relevant field (such as biology, biochemistry, neurobiology, or genetics).
– Excellent communication skills and an ability to work well with others.
– Demonstration of past research productivity (publications and/or patents).
How to apply: Send a cover letter, your CV, and the names/contact information of three references to Dr. Kate Meyer (kate.meyer@duke.edu). For more information on our lab, visit www.themeyerlab.com.

Postdoctoral Research Associates
Posted on June 24, 2017

The Zamudio lab in the Department of Molecular Cellular and Developmental Biology and the Broad Stem Cell Research Center at UCLA is seeking career-driven and creative Postdoctoral Research Associates to join our multidisciplinary team. We are studying new mechanisms of gene regulation by functional noncoding RNAs using a combination of genomic, system biology, biochemistry and cell biology approaches. Laboratory research will involve a variety of cutting-edge approaches in RNA and stem cell biology providing an excellent research training opportunity in genomics, bioinformatics and translational science.

Ph.D. in Molecular Biology, Cell Biology, Genetics/Genomics, Bioinformatics, Chemistry or a related field is required. Experience and publication record in statistical genomics, computational biology, stem cell biology or related fields including analysis of CLIP, ChIP, WGBS and RNA-seq data is preferred, but not required. Applicants with strong background in RNA molecular biology, genetics or related fields who are interested in developing new genomic approaches in mouse cancer models are also encouraged to apply. Competitive candidates will have a record of scientific productivity, leadership and collaborations.
Start Date: ASAP

Applicants should submit the following to jesse.zamudio@ucla.edu:
1) Cover letter stating: laboratory experience in RNA biology and bioinformatics; your long-term career goals; date of availability to begin postdoc research
2) Curriculum vitae (including publications and awards/honors)
3) List of at least three references

Jesse Zamudio was trained in the laboratory of Dr. Phil Sharp at the MIT Cancer Center. At MIT, he characterized regulation by the RNAi pathway in mammalian cells. Using system biology approaches, he found new species of RNA bound to Argonaute in a Dicer-dependent and Dicer-independent manner. The Zamudio lab's research goal is to characterize new mechanisms of RNA-mediated regulation essential for development and involved in disease progression.

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2 Postdoctoral positions in RNA regulation in Lai Lab, Sloan-Kettering, New York City
Posted on June 24, 2017

We seek experienced and 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 and mRNA processing, especially within the context of in vivo biology and phenotypes. We have several ongoing projects available, including:
(1) Molecular genetic analysis of endo-siRNA systems and adaptive gene regulation across Drosophila species (e.g. Wen Molecular Cell 2015). We have successfully used CRISPR/Cas9 to knockout the RNAi pathway in non-model fly species, revealing profound phenotypes that stem from de novo genetic conflicts. We seek to characterize the mechanistic bases of these meiotic drive systems, how they induce phenotypes, and how they are resolved by RNAi.
(2) Mechanism and biology of tissue-specific alternative polyadenylation pathways (e.g., Smibert Cell Reports 2012, Sanfilippo Development 2016). We have completed largescale 3′ end profiling across multiple tissues of multiple fly species, revealing cis-regulatory changes that alter 3′ end usage across evolution. We seek to couple this to a mechanistic understanding. We also identified RBPs that alter neural 3′ end lengthening, which figure into the equation. Finally, we are using CRISPR/Cas9 to delete selected highly conserved 3'UTRs, which reveal critical phenotypic requirements for post-transcriptional regulation, and we will further these studies.
(3) Tailing and trimming pathways in Drosophila and mammals (e.g. Bortolamiol-Becet, Molecular Cell 2015, Lin RNA 2017). Extending these recent studies, we identified new factors that are involved in restricting the accumulation of structured RNAs, and mutant analysis shows their involvement in gonadogenesis. We are combining molecular, genetic, and genomewide strategies to understand the scope of these inferred RNA quality control pathways.

We have opening for highly motivated postdoctoral fellows with broad interest in integrative strategies to join our team. Relevant candidates will have strong experience in studying RNA processing using cell culture, in vitro approaches, and genomewide methods. Bioinformatics and Drosophila expertise are beneficial. Positions are available immediately and funded by federal grants. Generous compensation, benefits, and housing package is provided to all fellows (https://www.mskcc.org/education-training/postdoctoral/current-incoming). Please send letter of inquiry, CV and references to laie@mskcc.org.

Tenure Track Faculty Position (Open Rank)
Posted on June 14, 2017

The Center for RNA Science and Therapeutics at Case Western Reserve University School of Medicine in Cleveland, Ohio invites applications for a tenure track faculty position (open rank) with focus on the connection of RNA biology and medicine. Preference will be given to candidates applying modern RNA methodologies to questions with direct medical relevance. Particular interest lie in the use of RNA for cancer immunotherapy, treatment of metabolic disorders, and immunity.

The Center for RNA Science and Therapeutics, a free-standing academic unit with several primary and more than 20 affiliated faculty, is a vibrant and collaborative environment for research on a wide range of RNA-related topics. Proximity to the Seidman Cancer Center, University Hospitals, the Cleveland Clinic, and the Louis Stokes Cleveland VA Medical Center provides abundant opportunities for collaborations with clinical groups or for direct clinical work. Candidates holding a PhD, MD/PhD, or MD with an outstanding record of research are invited to submit a curriculum vitae, a statement of future research plans, and contact information for three references. Applicants at the Associate or Full Professor level should also submit a synopsis of past research accomplishments. Junior candidates should demonstrate exceptional potential to develop an innovative, externally funded research program and should arrange for 3 letters of reference to be sent independently.

Please submit application materials by September 1, 2017, as single PDF file to Debra Klocker (dmk42@case.edu)
Case Western Reserve University is committed to Equal Opportunity and Diversity. Women, veterans, members of underrepresented minority groups, and individuals with disabilities are encouraged to apply.

Structure and Mechanisms of Cellular and Viral Noncoding RNAs and RNPs
Posted on June 14, 2017

A fully funded postdoctoral position (up to 5 years) is available in the Structural Biology of Noncoding RNAs and Ribonucleoproteins Section, Laboratory of Molecular Biology (LMB), NIDDK, in NIH's vibrant main campus in Bethesda, MD near Washington DC. The lab addresses a widening gap between the accelerated discovery and functional description of the noncoding transcriptome, and a lack of 3D structures and mechanistic understanding of complex noncoding RNAs. We seek a new member to join our diverse group to work on gene-regulatory riboswitches, highly structured viral RNAs, circular and other structured long noncoding RNAs and their RNP complexes. See https://www-mslmb.niddk.nih.gov/zhang/zhanglab.html

The lab is part of the Earl Stadtman Investigator program for high-risk, high-impact research at the NIH intramural program consisting of 1100 labs. The well-supported lab has dedicated access to complete suites of state-of-the-art equipment in structural biology (Mosquito, Dragonfly, Rock Imager, Akta Pures, FSEC, etc. for X-ray crystallography; new Titan Krios for single-particle Cryo-EM; SAXS, AFM, NMR, etc), efficient biochemistry, biophysics (ITC, DSC, SPR, BLI, AUC, DLS, SEC-MALS, CD, fluorescence, thermophoresis, etc), fermentation, genomics, and proteomics core facilities with hands-on training or service by PhD-level staff scientists. The NIH, NIDDK, and LMB are committed to the continued education and career development of trainees through numerous courses and workshops offered by OITE and FAES.

We apply innovative technologies to study RNA and RNP structure and dynamics, such as RNA cryo-EM, time-resolved XFEL, picosecond multi-temperature SAXS, etc. Ongoing projects include structural and mechanistic elucidations of how the T-box riboswitches (in bacteria) and Gcn2 kinase (in eukaryotes) recognize the structure and aminoacylation state of tRNA, and couple this readout of nutrient availability with initiating cellular starvation response. A second project addresses how viral and cellular RNA structures differentially manipulate immune response protein activities such as dsRNA-binding PKR. We are delineating what structural features of RNA are deterministic for activation or suppression of immune protein activity. The lab also works closely with the Center of HIV RNA Studies (CRNA) as a core lab. https://sites.google.com/a/umich.edu/the-center-for-hiv-rna-studies/faculty-cores. Incoming fellows are also encouraged to bring your own ideas that you could develop into research programs that you can take to your independent positions.

Requirements: Interested candidates must have received (or be expecting) a Ph.D. or M.D. within the past five years in molecular or structural biology, biochemistry, or biophysics, and be strongly self-motivated to lead innovative and rigorous research projects. Strong background in protein expression and purification, enzyme kinetics, RNA, or structural biology is desirable.

To apply: Please email a preferred start date, CV, a brief summary of research interests, accomplishments, and career goals, and names and contact information for at least three references to: Dr. Jinwei Zhang, Email: jinwei.zhang@nih.gov. The NIH is dedicated to building a diverse community and DHHS/NIH is an Equal Opportunity Employer.

Post-Doctoral Associate Position
Posted on June 5, 2017

A Post-Doctoral Associate position is open immediately in the lab of Dr. Paul F. Agris within The RNA Institute of the University at Albany (SUNY). Research of antibiotic resistant bacterial infection, Type 2 Diabetes, modified nucleoside enzyme mechanisms will be conducted with the study of, RNA, RNA-RNA, RNA-protein and small molecule interactions. Applicants are sought with expertise in modern high-field NMR instrumentation for determination of macromolecular structure, and experience in molecular biology/biochemistry with experience in RNA preferred. Foreign nationals must have a visa to be a postdoctoral fellow in the US for at least two years. An H1B application will not be financially sponsored. Apply to Dr. Paul F. Agris by email (PAgris@albany.edu) with the subject line of NMR Postdoc and include: letter of interest including date of availability, complete curriculum vitae with list of publications, statement of research experience in macromolecular NMR, and list of three or more contacts for letters of reference.

Postdoctoral Position in the Hargrove Lab
Posted on May 30, 2017

The Hargrove Lab is searching for a postdoc interested in exploring RNA as a therapeutic target. Funded projects include targeting long noncoding RNAs and alternatively spliced mRNAs that impact prostate cancer progression. Ideal candidates will have experience in RNA biochemistry and be familiar with molecular RNA experimental techniques.

The Hargrove Lab is broadly interested in the molecular recognition of RNA, including by proteins, nucleic acids, and small drug-like molecules. Current lab members benefit from a range of chemical and biological backgrounds, and collaboration both within and outside of the laboratory is recognized as a key component of success. This position is an excellent opportunity for enthusiastic, creative, and motivated researchers seeking interdisciplinary training in a rapidly expanding field.

For more information about the Hargrove Lab and list of recent publications, please see our webpage:
https://chem.duke.edu/labs/hargrove
Degree requirements: PhD by Sept 1, 2017
Start date: As soon as available
Duration: 1-2 years
To apply: Submit cover letter, CV, research statement, and information for three references at
https://academicjobsonline.org/ajo/jobs/8788
For questions, contact Professor Hargrove: amanda.hargrove@duke.edu

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Postdoctoral Position Available to Study Eukaryotic RNA modifications
Posted on May 18, 2017

A postdoctoral position is immediately available in Anders Byström's laboratory at the Department of Molecular Biology, Umeå University, Sweden. Our lab is using a combination of genetics, biochemistry and molecular biology to study the biosynthesis and function of modified nucleosides in tRNA and mRNA. Defects in the formation of several RNA modifications are linked to human disease. We are predominantly using Saccharomyces cerevisiae as the model organism and we have shown that the lack of specific modifications in tRNA leads to pleiotropic cellular phenotypes including defects in G1/ S transition, vesicular trafficking, telomeric gene silencing, and DNA check point control. In our on-going work we are investigating the mechanisms by which RNA modifications modulate gene expression.
Required qualifications are a PhD degree or equivalent with a documented background in RNA biology. Previous experience in yeast genetics and analysis of RNA modifications is an advantage. Applications should be written in English, comprise of a cover letter with a brief statement of research interests, CV with a publication list and contact information of at least two referees. Documents should be in MS Word or PDF format and submitted via e-mail (anders.bystrom@umu.se).

This position is a full-time, 12 month scholarship appointment with an opportunity for renewal based on performance and funding. Informal inquiries regarding this position are welcome.

Postdoctoral Research Fellow Position at Alberta RNA Research and Training Institute, University of Lethbridge, Canada
Posted on May 15, 2017

A postdoctoral research fellow position is available in the Kothe lab focusing on transcriptomics of RNA modification. This research addresses fundamental as well as disease-relevant aspects of RNA modification integrating transcriptomic approaches with cellular and biochemical studies. Thereby, the potential candidate will elucidate the complex contribution of RNA modifications to regulation of gene-expression. This position is fully funded for 2.5 years by Alberta Innovates.

This project builds on the expertise in the Kothe lab in studying pseudouridine formation and other RNA modifications in all types of RNA as well as investigating the ribosome. In our research, we apply a multidisciplinary approach including techniques such as protein/RNA biochemistry, fluorescence spectroscopy, rapid kinetics, cellular studies, E. coli and yeast genetics, next-generation sequencing and molecular dynamics simulations (http://scholar.ulethbridge.ca/kothe).

The Kothe lab is part of the Alberta RNA Research and Training Institute (ARRTI) with eight research groups spanning all areas of RNA research. ARRTI fosters a highly collaborative training and research environment with ample opportunities for scientific exchange and collaborative projects. Together, the ARRTI groups have access to a comprehensive suite of state-of-the-art equipment for biophysical, biochemical, cellular and computational studies (http://www.uleth.ca/research/centres-institutes/alberta-rna-research-and-training-institute-0).

Highly motivated researchers with a recent Ph.D. in biochemistry, molecular biology, cellular biology or a similar discipline are encouraged to apply. It is expected that candidates will have proven their research accomplishments by peer-reviewed publications. Next-generation sequencing and bioinformatics skills are highly desirable. Excellent verbal and written communication skills, teamwork ability and some experience in supervising students are expected.

Interested candidates should send a CV including at least three references, a motivation letter and copies of their most significant publications by email to Dr. Ute Kothe (ute.kothe@uleth.ca). Applications will be considered starting June 12th 2017 until the position is filled.

RNA Biology and Gene Regulation PhD/Postdoc Positions Available at the University of Regensburg
Posted on May 8, 2017

The University of Regensburg with its over 20,000 students is an innovative and interdisciplinary university, which provides a broad variety of research projects and disciplines. The Institute of Biochemistry, Genetics, and Microbiology, Chair of Biochemistry, Professor Meister, at the University of Regensburg is offering positions as PhD student or postdoc with a strong background in biochemistry/molecular biology.

Job specification:
Our research focuses on the various functions of human non-coding RNAs in gene regulation. We use biochemical and molecular biological approaches to dissect non-coding RNA pathways. In particular, we characterize regulatory processes guided by microRNAs, circRNAs or lncRNAs and in addition we analyze protein components of these pathways. Furthermore, we study RNA base modifications (e.g. m6A) and their roles in gene expression. We perform deep sequencing studies to identify such modifications under different conditions as well as structure-function experiments to characterize writer, reader and eraser enzymes that are involved in such pathways. We routinely characterize RNA-protein interactions using various experimental approaches including X-ray crystallography and molecular biological or biophysical strategies. Modern Cryo-electron-microscopy is used for structural analysis and can be learned and applied.

Qualifications: Candidates should hold a Master/Diplom/PhD or equivalent in Biochemistry, Molecular Biology or a closely related subject. We expect good communication skills, high motivation, dedication to molecular life sciences and the willingness to work in a competitive research field.

General framework: We offer a state-of-the-art biochemistry lab in an international environment with a long-standing experience in non-coding RNA biology. Well-equipped mass spectrometry, protein purification as well as deep sequencing platforms are available. A cryo-electron-microscope will be installed in the near futuer. The lab is generously funded by several national and international grants including an ERC consolidator grant. The successful candidate will be embedded into the international graduate school RIGEL.

The University of Regensburg is committed to the compatibility of family and career (for more information, please visit http://www.uni-regensburg.de/equal-opportunities). Severely disabled applicants are given preference in instances where applicants demonstrate an equal level of qualification. Please mention any severe disabilities, if applicable, in the application. Unfortunately, we do not provide reimbursement for expenses associated with interviewing.

For further enquiries please contact Professor Gunter Meister, phone +49 941 943-2847, gunter.meister@ur.de. Please send your application no later than 15.06.2017 to gunter.meister@ur.de

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Postbaccalaureate Fellow Position

Posted on May 3, 2017

The RNA Biology Division of New England Biolabs (NEB) invites applications for the position of Postbaccalaureate Fellow. NEB will provide recent college graduates who are planning to attend graduate or professional schools an opportunity to spend one year at NEB performing full-time research. The goal of this program is to engage undergraduates to consider basic and applied science related careers and providing them the opportunities for competitive science related education and careers.

The fellow will work with NEB scientists, and projects will be a part of a research program on different aspects of RNA biology. Research will be undertaken in a highly collaborative and academic environment and will offer motivated and talented students an opportunity to confirm their interest in basic and applied research.

Fellows will also have the opportunity to participate in a variety of scientific activities:
Group meetings to discuss research; Research seminars, science talks; Receive exposure to the upcoming trends in science and technology

Primary Responsibilities: Conduct hypothesis-driven scientific research in a laboratory setting
Execute a variety of molecular biology techniques including: PCR, in vitro RNA synthesis, gel electrophoresis; Maintain detailed records of research activities; Summarize and communicate research results in a group setting

Required Qualifications: Candidates must have been granted a Bachelor degree with a cumulative GPA of at least 3.3 on a 4.0 scale no more than 3 years before the date of application to the NEB Postbaccalaureate program. In addition, candidates must meet one of the following criteria:
Have been accepted into graduate/professional school and delayed entrance for up to one year to pursue research; Have completed or are pursuing their master's degree and are applying to doctoral or professional programs

Preferred Qualifications:
Prior research experience in a lab setting (as part of a course or research program); Excellent verbal and written communications skills and an aptitude for learning

Application Procedure: The application package must contain:
A cover letter (limit to 300-500 words) describing your short-term and long-term career goals, highlighting prior research experience relevant to the program. A resume or curriculum vitae. A list of coursework and grades. The names and contact information for three references (preference should be given to those who can comment on specific research experience or lab-related courses).

Apply online: https://chk.tbe.taleo.net/chk05/ats/careers/requisition.jsp?org=NEB&cws=1&rid=297
For more information, visit: https://www.neb.com