

RNA Society

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<http://www.rnajournal.org/>

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From the Desk of the President, Adrian Krainer

Dear RNA Society members:

I write to you only two short months after our wonderful



annual meeting in Québec City. For those of you who were unable to attend this year, the meeting was an outstanding success, scientifically, socially, and in every respect. The RNA Society owes much to the organizers—**Benoit**

Chabot, Martin Simard, Elena Conti, Fátima Gebauer, Barbara Golden, and Sean Ryder—who worked extremely hard to ensure that every aspect of the meeting worked seamlessly. (Continued on p2)

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The results of our annual election were announced at the meeting (and see below, page 3). Congratulations to **Sarah Woodson** (Johns Hopkins), who will be the next RNA Society President. Following a change in our bylaws, the President's term has been changed from one to two years, and Sarah will be the first to serve an extended term, beginning in 2015. In addition, the following new Directors were elected to join the Advisory Board: **Fred Allain** (ETH Zurich), **Barbara Golden** (Purdue), and **Phil Zamore** (U Mass Worcester). They will also serve a two-year term, beginning in 2015.

I am grateful to all the outstanding candidates who agreed to be on the ballot. They were chosen (and persuaded) by a very thoughtful and efficient **Nominations Committee**, composed of **Michelle Hastings, Peter Baumann, Jane Jackman, and Elmar Wahle**.

A high point of every annual meeting is the awarding of the RNA Society Service Award and Lifetime-Achievement Award. The departing 2012/13 **Directors, Tracy Johnson, Brent Graveley, and Mary O'Connell**, helped me select this year's awardees, and I thank them for a very thoughtful selection process.

We were all pleased and proud to honor **Ann Marie Micenmacher**, the winner of the RNA Society's Service Award. Ann Marie has been ably assisting **Tim Nilsen**—the Editor-in-Chief of *RNA* since the



journal's inception in 1995—and as Tim noted when he introduced her, she has handled every single manuscript submitted to the journal. Many of us have corresponded with Ann Marie at one time or another as authors or reviewers, so it was wonderful to have a chance to meet her in person and thank her for her outstanding dedication and service.

The Society's 2014 acknowledgement for Lifetime Achievement was awarded to **Reinhard Lührmann**.

Reinhard has been doing exemplary research on spliceosome composition, structure and dynamics for three decades, and it was inspiring to hear his lecture, giving a personal account of his scientific development, his lab's research accomplishments, his life in Germany before and after the fall of the Berlin Wall, as well as sharing his perspective of how the field has evolved and where it is headed.



At the meeting we also honored the winners of various Poster Awards, and of the Scaringe Awards. See page 10 for more details. Congratulations to all the winners, and many thanks to all the sponsors and volunteer judges. Other important events included: the mentor-mentee lunch (see page 12), which was organized by **Beth Tran** and **Nancy Greenbaum** and had record participation this year; various social and scientific activities organized by junior scientists, including a seminar about time-management in science (see pages 4-5); and of course the banquet and dance.

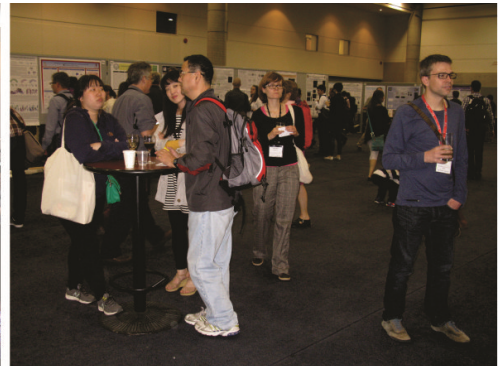
Given the crucial role of the annual meeting for the RNA Society, we owe a major debt of gratitude to **David Lilley**, who ably served for nine years as



Chair of an ad-hoc meetings committee charged with planning future meetings, choosing new venues, selecting organizers, etc. As per our bylaws, we have now formally established a Meetings Committee: **Benoit Chabot** has graciously accepted to serve a three-year term as Chair, replacing David, who is stepping down at the end of this year; other committee members appointed for an initial term of one year include **Andrea Barta, Jamie Williamson, Eric Phizicky, Erik Sontheimer, Narry Kim, and Michelle Hastings**. It has already been decided that next year, our annual meeting will return to Madison, at the end of May; in 2016 we will return to Kyoto, where the meeting will be jointly organized with the RNA Society of Japan; and plans are already underway to hold the 2017 meeting in Prague.

In closing, I would like to take this opportunity to personally thank the hard-working and dedicated RNA Society Staff, including our CEO **Jim McSwiggen**, our CFO **Andrew Feig**, the current Directors (**Jon Staley, Maria Carmo-Fonseca, Adrian Ferré d'Amaré, Fátima Gebauer, and Krysten Lynch**), as well as **Mary O'Connell** (Secretary), **Kristian Baker** (Membership), **Maire Osborn** (Business Development), and last but not least, **Brenda Peculis**, who is responsible for the newsletter.

Feel free to contact your current representatives at any time with questions, concerns, or suggestions. I wish you much success in your RNA research activities. Adrian Krainer. krainer@cshl.edu



RNA Society 2014 Election Results

The 2014 elections for positions on the RNA Society Board of Directors are complete. The results are in and were formally announced at RNA 2014. Once again, the results were close; your vote and every vote counted. The incoming members of the board are:

Elected to President

Sarah Woodson (Johns Hopkins University)

term: President-Elect 2014; President 2015-2016; Past-President 2017

Elected to Board of Directors

Frédéric Allain (ETH Zürich)

Barbara Golden (Purdue University)

Phillip D. Zamore (University of Massachusetts Medical School)

terms: 2 years, 2015 - 2016

We offer our thanks to these members for being willing to serve the Society in this very important capacity.





Summary of Meeting Activities

Events Hosted by Junior Scientists

Coming off a spectacular meeting in Québec, we're thrilled to report on a successful set of junior scientist activities at the meeting that were well attended and enjoyed by all! Whether for the purposes of career



development, networking, or simply a little socializing, the events brought the community of graduate students and postdocs in the RNA Society together in unique and productive ways.

On Tuesday morning before the official start of the meeting, upwards of 50 Graduate Student and Postdoc members of the Society met for a tour through Vieux-Québec, or the old city, followed by a Boat Cruise to Montmorency Falls. Vieux-Québec holds some of the more prominent sightseeing destinations in the city, including

the imposing Fairmont Le Château Frontenac, and the Notre-Dame-des-Victoires Church, a national historic site dated to 1723 and featured as a filming location in 2002's *Catch Me If You Can*. We'd like to offer tremendous thanks to the students from Université Laval for acting as informative tour guides on our walk to the pier! Upon arriving at the pier and boarding the cruise, we were treated with a history of the region given by a local guide, as well as fantastic views of the city as we sailed down the Saint Lawrence River toward the falls. It was truly a unique and enjoyable experience!

The annual Junior Scientist Social occurred on Wednesday evening before the first poster session, and was extremely well attended! It gave graduate students and postdocs an opportunity to meet one another and interact over drinks in a temporary (but brief!) respite from the action of the meeting. Despite the close quarters that had people overflowing into the corridor outside, everyone in attendance appeared to be enjoying themselves, with new friendships made and existing ones revisited.



On Saturday morning, we held the annual Career Development Workshop for the benefit of a large group of graduate students and postdocs, entitled “Time Management in Science: Doing More than Just Surviving.” We were treated to an engaging, interactive program led by **Mike Matrone**, the Career and Postdoctoral Services Program Coordinator at Scripps Research Institute Florida. In a talk whose themes ranged from setting and prioritizing professional goals to maintaining work-life balance to assembling a personalized time management



plan, Mike highlighted the set of highly relevant professional challenges that young scientists encounter on a regular basis, and

small group discussions in which participants shared their own experiences and strategies for coping with varied and constant demands upon our time as scientists, students and mentors.



We’d like to extend tremendous thanks to Mike Matrone for his participation in the career development workshop, **Kristin Scheyer** and **Mary McCann** of Simple Meetings for their presence and responsiveness to our resource and space needs, the RNA Society Executive Committee for their continued unwavering support of the Junior Scientist Committee, and all the junior scientists who attended for making this a fantastic installment in the RNA Society Junior Scientists’ annual activities! We look forward to a similarly successful meeting in Madison next year, where we hope to see you all again! Until then, keep in touch with us via e-mail (junior_scientists@rnasociety.org), our Facebook page (<https://www.facebook.com/groups/RNASocietyJuniorScientists/>), or our brand new Twitter handle (@jrRNAscientists)—we always love to hear from you!

Allison Didychuk (Graduate Student Representative, UW Madison)

Sebastian Markmiller (Postdoc Representative, UCSD)

Phil McCown (Postdoc Representative, Indiana University)

Michael Meers (Grad Student Representative, UNC Chapel Hill)



RNA 2014

Lifetime achievement award : Reinhard Lührmann

This year's recipient of the 2014 RNA Society Lifetime achievement in Science award was **Reinhard Lührmann**. Nearly his first words after accepting the award from Society President **Adrian Krainer** was to affirm that, despite the title of the award, neither life nor science would be terminated by this award. His lighthearted talk that followed was a personal and scientific journey.

Reinhard began his presentation at the beginning – literally. His life started on a farm in northern Germany, where he was fascinated not yet by molecular machines (that interest would develop later) but instead by biological machines – in this case, horses. He assured us that he was sent away to high school, thus saving the family farm from an early ruin.



Reinhard studied chemistry at the University of Münster, where by chance he came across an article about the genetic code and its deciphering, with the help of tRNA molecules and small

black dots that were called ribosomes. He was enchanted by these ideas and decided to work on his PhD with **Hans Günter Gassen**, performing affinity labelling of the ribosomal codon-binding site. Hans Günter Gassen was a fantastic mentor who taught Reinhard to listen to his inner voice and showed him what it meant to experience the “magic moment” of seeing something that nobody else has seen before.

From Münster he went on to do a post-doctoral fellowship at the Max Planck Institute for Molecular Genetics in Berlin in the lab of **Hans Günter Wittmann**. He was very keen on going to Berlin where he viewed the city as offering an exciting life, both night and day. He continued to work on the ribosome, performing functional

studies on ribosomal RNA binding, and, together with **Georg Stöffler**, localizing functional sites on the ribosome such as the binding points for mRNA and antibiotics using immunoelectron microscopy.

In 1980, Reinhard was ready to leave Berlin (to start something new in the field of immunology), but his wife was not. Thus, he applied for a junior research group leader position at the Max Planck Institute in



Berlin, which required finding a fundable, exciting project. Luckily, the field of RNA splicing was just opening up and Reinhard came across two milestone papers from **Joan Steitz's** lab, one showing that sera from patients with the autoimmune disease systemic lupus erythematosus, precipitate a group of small nuclear RNPs that contained the snRNAs U1, U2, U4, U5 und U6, and another showing that the 5' end of U1 snRNA is complementary to the 5' splice sites of introns, suggesting that U1 snRNP might play a decisive part in recognizing the 5' splice site. He at once saw a wonderful research project unfolding before his eyes. He could combine his interest in immunology with his experience in RNA–protein complexes, by producing antibodies against the m₃G cap structure of U1 snRNA and then isolate snRNPs by immunaffinity chromatography to start to investigate their structure and function.

Reinhard chemically synthesized the 5' ^{2,2,7}tri methyl guanosine (TMG) cap and used it to inoculate a rabbit (#1131) to generate an antibody specific to the hypermethylated cap structure. Since the TMG cap was present at the 5' end of

many snRNAs, the anti-TMG cap antibody proved to be an invaluable tool (still used today!). His observation that the U6 snRNA, known to lack a TMG cap, none-the-less co-precipitated with the U4 snRNA led to the identification of the associated U4/U6 di-snRNP, and later the finding that the U4/U6 snRNAs were base paired in this di-snRNP. In Berlin, **Bertold Kastner** joined his group and his EM studies of purified U1 snRNPs generated the first images of a snRNP, which many noticed had a strange resemblance to Mickey Mouse. By visualizing different snRNPs containing only Sm proteins, their studies also revealed a common round-shaped snRNP core structure.

While the anti-TMG antibody became an invaluable tool for many studies in many labs, it secured



Reinhard's place in the structural/functional realm of the spliceosomal field. Alas, the rabbit that generated antibody #1131 was put to rest under a chestnut tree in Berlin, and Reinhard still visits his grave from time to time with friends from the splicing field.

This work also initiated a number of collaborations and many good friendships. He worked with **Walter Keller** (who has also been awarded this honor by the RNA Society!) and **Angela Krämer**, who had developed an in vitro splicing assay, and together they demonstrated that elimination of the 5' end of U1 snRNA via oligo-targeted RNaseH cleavage prevented splicing. This work resulted in Reinhardt's first Cell paper, co authored with **Keller** and **Krämer**.

Reinhard first attended an RNA meeting in 1983. He gave a ten-minute talk on his initial results with the anti-cap antibodies. Since then the RNA meetings have been a highlight of his scientific life, providing an opportunity to interact with colleagues and friends, and to cut a rug on the dance floor!

In 1988 Reinhard left Berlin and moved to Marburg, Germany to take a chair in Physiological Chemistry and Molecular Biology at the University of Marburg, just missing the celebrations as Berlin reunified. At this time snRNPs appeared to possess only a handful of proteins and Reinhard had already been looking for a new research topic to keep his lab members off the street. Fortunately, this all changed when his lab started to isolate snRNPs under lower salt conditions, which not only considerably increased the sizes of the snRNPs but also revealed the presence of many additional snRNP proteins, with their total number suddenly approaching 50 in the human system.

From then on Reinhard's group was quite busy with the molecular characterization and investigation of the roles of many of the newly discovered snRNP-specific proteins in splicing, using an in vitro snRNP reconstitution system that they established in the lab. Later, with the identification of novel U11/U12 proteins of the minor spliceosome by **Cindy Will** in his group, the number of snRNP-specific proteins and their many functions during splicing continued to grow.

In Marburg, Reinhard also intensified his studies of the Sm core structure of snRNPs, discovering two new Sm proteins and showing that the now seven Sm proteins form subcomplexes with each other. These studies facilitated their co-expression and the solving of their crystal structures by **Kyoshi Nagai**, who came up with the ingenious doughnut-ring model of the Sm core. This ring structure was consistent with the dimensions of the round structure seen in EM images of the RNP cores earlier by **Berthold Kastner**. **Henning Urlaub**, **Veronica Raker** and **Klaus Hartmuth** in the lab then succeeded in mapping RNA-Sm protein cross-links at the Sm site, which indicated that the Sm-site RNA must reside inside the central hole of the Sm ring – a model that was later fully confirmed by the

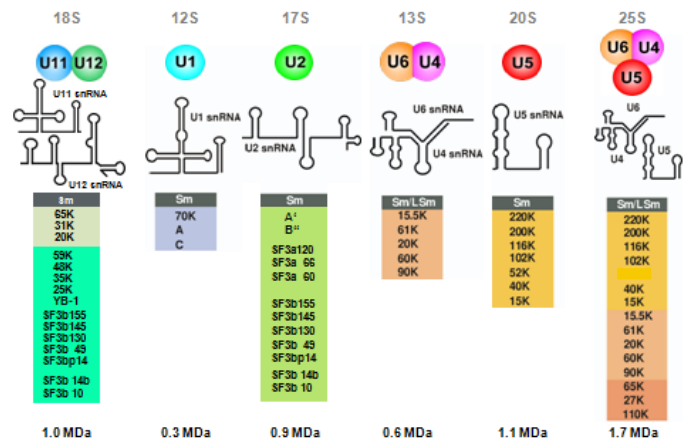
crystal structure of the reconstituted U1 snRNP by Kyoshi's laboratory, and of native U1 snRNP by Reinhard's and **Markus Wahl's** lab.

In the 1990s, **Patrizia Fabrizio** came from the Abelson lab and brought with her knowledge of the yeast system. Since the yeast genome had been sequenced, Reinhard and Patrizia joined forces with **Matthias Mann's** mass spectrometry group at the EMBL and together, they managed to identify in one fell swoop all the proteins of biochemically purified yeast U1 snRNPs. It represented a turning point and led to an enormously accelerated characterization of yeast snRNPs and entire spliceosomes.

Another focus of Reinhard's work in the 1990s, was the biogenesis of the snRNPs. Mattaj and de Robertis had shown in 1985 that m⁷G capped snRNAs are first exported into the cytoplasm, where their cap structure gets hypermethylated upon association with the Sm proteins, and are then transported back into the nucleus. **Utz Fischer** in the Lührmann lab showed that the TMG cap was an essential signal for nuclear import of the U1 snRNP. Additional work, carried out together with **Iain Mattaj**, showed the Sm core complex was part of the nuclear localization signal and helps the TMG cap localize the snRNPs to the nucleus. Later, Reinhard's group isolated and characterized snurportin, the protein that facilitates recognition of the TMG cap for nuclear import. This discovery allowed him to come full circle, returning to the TMG cap, while adding layers of molecular complexity and understanding to the components and their biological function.

In 1999 Reinhard moved to Göttingen as Director and Scientific Member at the Max Planck Institute for Biophysical Chemistry. This gave Reinhard the opportunity to establish junior researcher groups for electron cryomicroscopy headed by **Holger Stark**, and for X-ray crystallography, led initially by **Ralf Ficner** and later by **Markus Wahl**, and also to establish a mass-spectrometry group, led by **Henning Urlaub**. These combined approaches were the basis for joint attempts by these groups and the Lührmann lab to isolate "functional snapshots" of human and yeast spliceosomes, and to subsequently characterize their composition and structure using a multi-parameter approach.

Protein composition of human spliceosomal small nuclear ribonucleoproteins (U snRNPs)



His group succeeded in purifying both yeast and human spliceosomes stalled at highly defined stages of assembly and function. By defining their protein composition, Reinhard's work provided a clearer picture of the extreme structural and compositional dynamics of the spliceosome, and its extensive remodeling at the various stages of a single round of splicing. The dream of every biochemist is that of assembling his pet machine *in vitro* from purified components and Reinhard recently realized this, at least partly, with the yeast spliceosome, where starting from the purified B^{act} complex his group could recapitulate the entire catalytic and disassembly phases *in vitro*, by successively adding the remaining splicing factors needed.

At the MPI in Goettingen, Reinhard's group also intensified its investigation of the 3D structure of snRNPs and spliceosomal complexes, combining

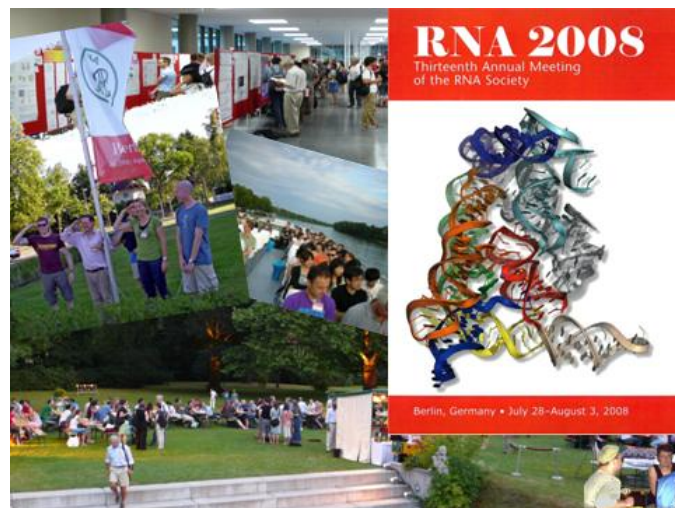


biochemical and biophysical methods with X-ray crystallography, cryo-EM and structural mass spectrometry. His continued collaboration with **Holger Stark** has led to low to medium resolution cryo-EM 3D structures of various spliceosomal subunits and the spliceosome at various stages of its assembly/action, and allowed the visualization of the spliceosome's structural rearrangements. Improvements in imaging and sample purification/handling hold much promise for significantly higher resolution structures in the near future. In addition, his collaboration with **Markus Wahl** also provided insights into the atomic structure of many smaller pieces of the snRNPs and spliceosomes. The structures obtained by both cryo-EM and crystallography have helped us better understand how this molecular machine forms, changes and evolves to complete its cellular role.

Reinhard brought to his lab and to collaborations his unique combination of training as a chemist with many other interests. He had a long-standing appreciation of electron microscopy, so his interest in pursuing the images of complexes via cryo-EM opened new doors. Combined with the stellar biochemistry and biophysics his lab was capable of, the mass spectrometrists and structural biologists he worked with, and highly influenced by good collaborators, friends and colleagues, Reinhard and his lab were able to make a huge number of discoveries. Ultimately this would lead to understanding the biogenesis of the snRNPs, their transport into the nucleus, assembly with pre-mRNA, and the complex compositional and structural dynamics of the spliceosome.

Reinhard was gracious in acknowledging not only those who worked in his lab, but also those with

whom he collaborated. His many fruitful collaborations over the years with EURASNET and other groups throughout Europe and the world, created a depth of knowledge and expertise that would otherwise not have been possible. In addition, he acknowledged the Max Planck Society, who funded these challenging and risky endeavors, which ultimately provided such clarity and insight.



Beyond his scientific accomplishments, Reinhard very proudly reminded us of his other recent and visible contributions to the RNA Society. He was the local organizer of the 2008 RNA Society meeting in Berlin where he initiated the change in the format of the annual meeting's abstract book (which persists today). He was very proud of the nightly Bier Garten in Berlin as an optimal communication place. The atmosphere of beer, science and food has never been equaled, but he has high hopes (and put in a specific request) for the meeting in Prague to uphold this uniquely European tradition. (BP with edits from RL)

2014 RNA Society Service Award: Ann Marie Micenmacher

This year's award for Outstanding Service to the RNA Society and its Members was presented on behalf of the RNA Society, by Tim Nilsen, Editor-in-Chief of *RNA*. The award was given to **Ann Marie Micenmacher**.

Ann Marie is the person who has assisted Tim and facilitated his job as Editor-in-Chief. As such, she has worked with every author who has ever submitted a manuscript for the *RNA* journal! She has assisted Tim in communicating with the reviewers, the editors and the authors of manuscripts since the journal started in 1995.

Given her dedicated service over this extended period of time, it was particularly nice to meet her in person and to thank her, both officially and publicly, for all her time and effort!



The RNA Society/Scaringe Young Scientist Award

The RNA Society / Scaringe 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. This award is open to all junior scientists (graduate students and post-docs) worldwide who have made a significant research contribution to the broad area of RNA. The 2014 awards go to :



**RNA Society/Scaringe Award
to a Graduate Student**
David Weinberg, David Bartel lab



**RNA Society/Scaringe Award
to a Postdoctoral fellow :**
Jinwei Zhang, Adrian Ferré-D'Amaré lab

RNA Society poster prizes presented at RNA 2014

Graduate students and postdocs presenting posters at RNA 2014 are eligible for these prizes. All awardees were selected by a hard working and very diligent panel of over 50 volunteers who acted as Judges during the meeting.

Biochemistry Poster Prize

Poster # 207 **Tucker Carrocci**, University of Wisconsin-Madison. USA

Nature Structural Molecular Biology Poster Prizes:

In Molecular Biology & Biochemistry :

Poster # 478 **Andrea Putnam**, Case Western Reserve, USA

In Genetics & Development :

Poster # 283 **Thomas Bebee**, University of Pennsylvania, USA

In Biophysics & Structural Biology :

Poster # 448 **Elizabeth Wasmuth**, Sloan Kettering Institute, USA

Nature Reviews Mol. Cell Biology Poster Prize For ‘Innovation and Interdisciplinary Research’

Poster # 573 **Matthew Kahlscheuer**, University of Michigan

ACS Chemical Biology Poster Prize for ‘Innovative use of chemical biology applied to the study of RNA’

Poster #217 **Xuesong Shi**, Stanford University

The RNA Society Poster Awards

Poster # 537 **Clement Chevalier**, ETH, Zurich, Switzerland

Poster # 347 **Nicolas Fossat**, Children’s Medical Research Inst. Sydney Australia

Poster # 547 **Alexander Klenov**, York University, Ontario, Canada

Poster # 613 **Michael Marvin**, UCSF, USA

Poster # 626 **Muhammad Sohail**, University of Manitoba, Canada



Shown, from left to right : **Xuesong Shi, Matthew Kahlscheuer, Tomas Bebee, Elizabeth Wasmuth, Nicolas Fossat, Andrea Putnam, Michael Marvin, Clement Chevalier and Tucker Carrocci**

Mentoring Lunch

By Elisabeth Tran

The Mentor-Mentee Luncheon offers students and postdocs the chance to meet with faculty and other professionals in a casual environment. This year's luncheon was one of the most successful events at RNA 2014. We saw record number of attendees (520 out of 945 at the meeting), with a 30% increase in participation from RNA 2013. Interestingly, we had increased mentor and mentees with the vast majority of students and postdocs attending the meeting also participating in the lunch (~80%). The luncheon was held on Thursday, immediately following the plenary session on high-throughput techniques. Students, postdocs, faculty and other professionals were seated at individual tables according to selected discussion topic choices. This year, both the mentors and mentees had the option of picking first and second choice topics.

This year, topics ranged from obtaining a postdoc position to working in industry and writing successful grant applications. We also added two new topics this year, communication and conflict resolution and non-faculty careers in academia. The latter topic was widely popular, with more mentees than mentors. We will offer this topic again at RNA 2015 so please encourage lab technicians, core directors, and other research staff scientists to sign up as mentors so we can support the demand!

Another new addition to this year's luncheon was a selection of 'ice breaker' questions provided by Nancy Greenbaum (Hunter College-CUNY). In an effort to jump-start conversations, Nancy provided topical questions to each of the mentors at each table. These were well received and will likely be included in next year's luncheon. I think this luncheon, and its increasing popularity, underscores the fact that the RNA Society recognizes and supports high-quality mentoring. Good mentoring is key to scientific success.

If you have any comments/suggestions regarding the luncheon, please email me directly at ejtran@purdue.edu. Thanks again to all that participated and see you at RNA 2015.

Annual Meeting Dates

The dates for the RNA Society's annual meetings are set for 2015 through 2017. Add the dates to your calendar so that you don't miss out.

RNA 2015 (The 20th Annual Meeting of the RNA Society)

May 26-31, 2015

University of Wisconsin, Madison

Madison, WI, USA

RNA 2016 (The 21th Annual Meeting of the RNA Society)

June 28 – July 2, 2016

Kyoto International Conference Center

Kyoto, Japan

RNA 2017 (The 22th Annual Meeting of the RNA Society)

June 13-17, 2017

Prague Congress Center

Prague, Czech Republic



From the desk of the CEO Jim McSwiggen



I sometimes feel like the Steve Martin weatherman character in the movie, *LA Story*. His character was always reporting that the weather in LA was going to be “sunny and 75 degrees”. Likewise, I am always faced with having to report uniformly good news about the RNA Society’s finances, membership, annual meeting, and journal. Such is the hard life of the society’s CEO. Well, here it is.

- Society membership reached an all-time high of **1603** in June. This is due largely to our on-going recruitment efforts, renewal incentives, and making membership a more attractive option for those attending the annual meeting.
- The journal, *RNA*, continues to enjoy both scientific regard and continued profitability. Net profit share to the society was at an all-time high of **\$266,800** in 2013, and 2014 are expected to be similar.
- The annual meeting in Quebec was a huge success. There were **911** attendees—just 30 fewer than Davos—fantastic science, great food, a really nice conference venue, a really fantastic surrounding city, and good weather. The accounts are still being finalized, but we are hoping that the event will break even or turn a small profit.
- The RNA 2014 conference survey is now complete and can be reviewed [here](#). As in the past, attendees were largely very pleased with all aspects of the conference, although a few small areas of concern were raised and will be addressed in the future.
- The Society ended 2013 with almost **\$1.5 million** in assets, and we expect to add ~\$150,000 in 2014. A portion of those funds is finally being put into (conservative) investments, so that the society can continue to grow financially.
- The Society is now hosting two small conferences as a test of whether such activities will be a benefit to our members and the RNA community. The meetings are: The **RNAse H** meeting (7-10 September 2014, Airlie Center, Warrenton, VA), and the **Ribosome Synthesis** meeting (19-22 August 2015, Hotel Metropole, Brussels, Belgium). Both meetings will offer small registration discounts for our members.

I want to thank you, the members, for making it so difficult to find something new to talk about each time. You continue to be very supportive of each other and the Society—through your membership, your volunteerism, and your insistence on the highest quality research. It makes my job hard and easy at the same time.

As always, if you have questions or comments about what I have written here—or regarding any other Society business—I will be happy to hear them. You can contact me at ceo@rnasociety.org.

Involved in education? Interested in outreach and looking for resources?

Check out the Nova web site <http://www.pbs.org/wgbh/nova/> and Nova Labs including the RNA lab <http://www.pbs.org/wgbh/nova/labs/lab/rna/> for materials including EteRNA, the video library and for additional materials for educators to help bring these on-line labs to the class room.

Nova labs and website was produced for PBS Online by WGBH, Boston. RNA Lab partners were the Carnegie Mellon University, The Eterna project, Lockheed Martin, NASA and the Argosy Foundation



Jr Scientists Corner

Grad student/Postdoc Corner: RNA Society Junior Scientists

Hello from the RNA Junior Scientist Committee! We're here to advocate specifically for graduate student and postdoc members of the RNA Society, and it is our goal to encourage participation in the society, support members financially, programmatically and otherwise, and to foster a welcoming and supportive environment for junior scientists in the RNA field. Read on to see what we've been up to recently!

Coming off of a successful RNA Society meeting in Quebec (see our meeting activities summary above), the Junior Scientist Committee is in a period of big new changes, with cherished members transitioning out and fresh new faces taking their places. After a two-year term of active and tireless advocacy on behalf of the committee, our faculty mentor **Beth Tran** is stepping down, leaving behind a legacy of dedicated mentorship for the Committee that will serve as an example for future faculty mentors. We'll miss her presence and excellent advice, in addition to her singular ability to keep us on task!

We also say goodbye to graduate student and postdoctoral representatives **Callie Wigington, Jo Marie Bacusmo** and **Oussama Meziane**, all of whom played instrumental roles in organizing and implementing this year's activities. We're sad to see them go, but we thank them for their tremendous contributions, wish them the very best in future scientific endeavors, and are confident our paths will cross at future RNA meetings!

With some on the way out, we're extremely excited to introduce the talented individuals who will be taking their places! **Sam Butcher** of UW Madison is coming on as a new faculty advisor, and will no doubt be instrumental in advising the committee in advance of the Madison meeting and beyond. We also welcome **Allison Didychuk** of Sam's lab at UW as a graduate student representative, and our new postdoc representatives **Sebastian Markmiller** from Gene Yeo's lab at UCSD, and **Phillip McCown** from Craig Pikaard's lab at Indiana. Read their introductions below!

As many of you who attended the meeting have seen, we sent out a survey after the meeting gauging your thoughts on the organized Junior Scientist activities in Quebec, what you liked about them, and how they could be improved. We're excited to have already received many responses that will help us shape the activities that we plan in the future! We always want to hear your thoughts, so if you haven't already filled out a survey and would like to, please contact us at the RNA Society Junior Scientists' email address (junior_scientists@rnasociety.org) for more details! Also, make sure to check out the RNA Society Junior Scientists' Facebook page (<https://www.facebook.com/groups/RNASocietyJuniorScientists/>) and our brand new Twitter handle (@jrRNAscientists) for updates on our activities throughout the year and leading up to next year's meeting in Madison! Finally, we're proud to announce that we've created a LinkedIn group (Junior RNA Society Scientists) that we hope will serve as a forum for professional networking and discussion amongst grad students and postdocs working in RNA and related fields. We invite you all to join!

We always want to hear more about what you as graduate students and postdocs would like to see from the Society and at the annual meetings, so we encourage you to contact us at any time with questions, suggestions and concerns. Here's hoping you enjoy the best that RNA research has to offer over the coming months!

Allison Didychuk (Graduate Student Representative, UW Madison)
Sebastian Markmiller (Postdoc Representative, UCSD)
Phil McCown (Postdoc Representative, Indiana University)
Michael Meers (Grad Student Representative, UNC Chapel Hill)



Meet your New Representatives

Each year, the Junior Scientists representatives volunteer to serve for another year, and new representatives are chosen. This year's new representatives will work with Michael Meers (Grad Student Representative, UNC Chapel Hill) and Katrin Karbstein (Faculty Advisor) who served last year, and provide continuity.

Hello everyone! I am **Allison Didychuk**, a 3rd year graduate student in Sam Butcher's lab at the University of Wisconsin-Madison. Our lab's focus is on the spliceosome. I study the structure and mechanism of assembly of the U4/U6 snRNP. I'm using a combination of NMR and SAXS to determine the structure of U4/U6 di-snRNA. I'm also studying how the protein Prp24 anneals together U4 and U6 RNAs to form U4/U6. I am very excited about representing junior scientists in the RNA Society, and look forward to our next meeting here in Madison!



Hello everyone. I am **Sebastian Markmiller**, a postdoc in the lab of Gene Yeo at the University of California, San Diego. After having studied U12-type splicing in vertebrate development during my graduate studies, I am now exploring the contribution of abnormal RNA processing to neurodegeneration. RNA is central to many neurodegenerative diseases, either through "toxic" repetitive RNA or through mutations in critical RNA binding proteins. I use iPS cells and genome-wide sequencing approaches to create and analyze *in vitro* models of neurodegeneration. My past RNA Society Meetings in Berlin, Seattle and Quebec City have all been fantastic opportunities to meet many great people in the RNA field. I am looking forward to being a representative for junior RNA scientists and to making our ideas and contributions to the community count.



Hi everyone! I'm **Phil McCown**, a new postdoctoral researcher in the Craig Pikaard laboratory at Indiana University and a graduate student alum from the Ron Breaker laboratory at Yale. The Pikaard lab conducts research on RNA silencing in plants, particularly RNA-directed DNA methylation. My work focuses on how RNA PolIV, RNA PolV, and associated proteins specifically target and modify DNA using small RNAs. As a representative, I hope to help out with the social media and social activities aspects for the Junior Scientists. As a frequent attendee of RNA meetings, I look forward to seeing familiar faces, catching up with old friends, meeting new people, and learning about some amazing science in Madison!



New Faculty Advisor : Sam Butcher

I'm excited to be a faculty advisor for the Jr. Scientists of the RNA Society. I think one of the greatest things about the society is the way in which it recognizes the importance of young scientists. For example, I know of no other society where graduate students and post-docs get to give so many talks at the annual meeting. This is how it should be- after all, what could be more important to the future of science than promoting the development of junior scientists? I myself scientifically "grew up" with the RNA society and owe a lot to it. As a faculty advisor I look forward to working with the younger members of the society and hope to see you all in my neighborhood (Madison) in 2015!



Keep in touch with us via e-mail (junior_scientists@rnasociety.org),
Our Facebook page (<https://www.facebook.com/groups/RNASocietyJuniorScientists/>),
Or our brand new Twitter handle (@jrRNAscientists) We always love to hear from you!



Chairman of the Meetings Committee David Lilley

Hard as it is for me to believe, I am now writing my final piece for the newsletter as chairman of the meetings committee. After something like eight



years in the post (I think, to be honest I have rather lost count by now) I shall be stepping down at the end of this year. I do so with rather mixed feelings. As a fully-committed

active research scientist I sometimes feel I cannot devote the time I feel I should, but it has always been a pleasure working with the members of the RNA Society. Of the various scientific areas in which I have worked during a fairly long career, the RNA research community is quite exceptional in its combination of high scientific achievements with outstandingly collegiate interpersonal relations. This I attribute to the standards set by the original founders of the society and maintained by newer generations coming up. So it has always been a pleasure working with everyone in this vibrant and exciting society.

For my final piece Brenda asked me to look back on some of the highlights of my tenure. As I work on a three- or four-year cycle I've now seen quite a few venues go from first proposal through to a successful conference. I think they have all been excellent, but some remain memorable for a variety of reasons. Some because of the sheer personality of the lead organizer, and in particular for me Berlin stands out. That was **Reinhard Lührmann's** concept right from the start and was a wonderful experience. Who can ever forget the long balmy evenings spent in the bier garden after the poster sessions ! That was an inspired innovation and one that seems set to become a feature of our European meetings at least.

One of my goals on becoming Meetings Committee chair was to take the annual conference to Asia. A poll of the membership showed that around 2/3

were in favor of this, and after hearing bids from two venues, Kyoto in Japan was selected. This was also the first time that we held the meeting jointly with another society, in this case the Japanese RNA Society. So RNA 2011 was held in the wonderful ancient Japanese capital of Kyoto, in the International Conference Center where the UN Framework Convention on Climate Change had been signed in 1997. The conference was a huge success, and I'm delighted to say that we shall be returning to the same venue for RNA 2016. Last year's meeting in Davos was in a similarly famous conference center, where the G8 (now reverted to G7 I guess) Economic Forum meets in the winter. This too was a memorable meeting.

But while of course it tends to be the more exotic venues that immediately come to mind, I don't want to ignore our traditional style of meeting held on US campuses. In many ways our real home remains Madison, and I'm very pleased that we can return there for the meeting next year, ably led by **Dave Brow**. I also have fond memories of our meetings in Seattle and Ann Arbor, and perhaps there will be opportunities to return to these locations in the future.

So what makes a society conference memorable in the longer term ? Well, clearly the venue helps with the overall experience. But let's not lose sight of our real purpose, RNA science. The most important ingredient in our meetings is the science we learn, be it in the sessions, at the posters or just chatting in the corridors or the bar. I judge the real impact of any meeting by what I heard that really made me sit up and take notice. Alas, the organizers have very little control over that, beyond creating an environment that actively promotes the presentation of exciting new unpublished data and fosters frank scientific interchange. But that is what we hope for, and pretty often achieve.

Before I put down my metaphorical pen, it would be remiss of me not to say how truly excellent was this year's meeting in Québec. The old town of Québec was utterly charming, and the conference was quite



outstanding. On behalf of all of us attending, sincere thanks go to **Elena Conti, Fátima Gebauer, Barb Golden** and **Sean Ryder** and special thanks to **Martin Simard** as local organizer and **Benoit Chabot** as a quite exceptional lead. I could tell right from the outset that this was going to be a very well-organized and special meeting, and so it proved to be.

And one last piece of news of future meetings, concerning RNA 2017. At the meetings committee meeting in Québec we heard excellent bids from two European venues. I think that was perhaps one of the harder decisions we have had to make, but there can only be one winner. I'm pleased to say that in 2017 we shall meet in the Czech capital city of Prague. It is an outstandingly beautiful city, with a history of over 1,000 years. I greatly look forward again to ambling across the Charles Bridge on a

warm summer's evening. And for those interested in a scientific pilgrimage, a train or bus ride (about two and a half hours) will take you to Brno where you can visit Gregor Mendel's monastery and museum.

Well, although this is my final missive in this newsletter, it is far from my last involvement in the RNA Society. I certainly intend to continue attending the meeting each year, and indeed I am a co-organizer of RNA 2016 in Kyoto. But I step down happy in the knowledge that the post will be in very safe hands as we go into the future. I shall be succeeded by **Benoit Chabot**. Having observed his organizational skills in running this year's society conference I know that I could not be handing over to a better successor. Good luck Benoit, *bonne chance* !

David Lilley 21 July 2014

Thank you, Volunteers

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

Committees and Committee Chairs

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

- **Andrew Feig** is our Chief Financial Officer. He acts as the interface with our business office at FASEB, requests and approves payments for Society expenses, oversees our new investment committee, and generally ensures that we stay on track financially. Andrew has been doing this for a year and a half, and our financial organization has much improved under his tenure.
- **David Lilley** has been the Meetings Committee Chair since 2005. He leads the effort to find the next interesting place to hold our annual meeting, while ensuring that the venue will be both workable and affordable. He successfully led the effort to bring the annual meeting to Asia (to which we return in 2016). He has been helped this year by a newly reconstituted meetings committee that includes: **Andrea Barta, Jamie Williamson, Eric Phizicky, Erik Sontheimer, Narry Kim, and Michelle Hastings**. David is stepping down as chair of this committee at the end of this year, and will be greatly missed.
- **Kristian Baker** is the Chair of our Membership Committee. She is working to find more and better ways to serve our membership and to encourage more people to join. She just started in this role at the beginning of the year.
- **Maire Osborn** is the Chair of our Business Development Committee. She is tasked with building better connections between the RNA Society and the RNA business community, to seek financial support from them for our activities, and to encourage their participation in the annual conference. She just started in this role at the beginning of the year.
- 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 Member. Most importantly, after identifying such candidates they have to



convince them to agree to run for office. This year the job was handled by: **Michelle Hastings, Peter Baumann, Jane Jackman, and Elmar Wahle**. An excellent field of candidates was identified and persuaded to run for office.

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 Quebec was a great success. The RNA 2015 organizers are now hard at work preparing for next year's conference, while the 2016 organizers are also busy soliciting sponsorships.

RNA 2014 Organizers: **Benoit Chabot, Martin Simard, Elena Conti, Fátima Gebauer, Barbara Golden, and Sean Ryder**

RNA 2015 Organizers: **David Brow, Matthias Hentze, Amy Pasquinelli, and Anna Pyle**

RNA 2016 Organizers: **Mikiko Siomi, Utz Fischer, Wendy Gilbert, David Lilley, Erik Sontheimer, Tsutomu Suzuki**

Conference Volunteers

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

- Each year the conference organizers rely heavily on the session chairs to help in selecting abstracts for oral presentations, and then for introducing the session and ensuring that talks stay on schedule. This year, as always, the session chairs did an excellent job in these tasks. Thanks to session chairs: **Claudia Bagni, Ben Blencowe, Ron Breaker, Janusz Bujnicki, Emmanuelle Charpentier, Jeff Coller, Kathy Collins, Anita Corbett, Matt Disney, Wendy Gilbert, Kathrin Karbstein, Jorgen Kjems, François Major, Bill Marzluff, Karla Neugebauer, Marie Öhman, Barbara Papadopoulou, Michael Sattler, Jonathan Staley, Scott Strobel, Yukihide Tomari, Eric Westhof, and Gene Yeo.**
- 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 an amazing group of over 50 volunteers, and lead by conference organizer **Fatima Gebauer**. This year's judges were: **Ruslan Aphasizhev, Stella Aronov, Kristian Baker, Andrea Barta, Edouard Bertrand, Christiane Branlant, Giovanni Bussi, Demián Cazalla, Julie Claycomb, Atlanta Cook, Carl Correll, Jocelyn Côte, Gloria Culver, Victoria Derose, Andrzej Dziembowski, Mikko Frilander, David Gresham, Andrew Grimson, Klemens Hertel, Florian Heyd, Katalin Hudak, Stephan Hüttelmaier, Jane Jackman, Melissa Jurica, Rotem Karni, Bessie Kebaara, Narry Kim, Alexei Korennykh, Andreas Kulozik, Alain Laederach, Eric Lecuyer, Pascale Legault, Ren-Jang Lin, Francois Major, Joel Mcmanus, Marie Ohman, Alexander Palazzo, Jean-Pierre Perreault, Norbert Polacek, Feng Qiao, Maria Selmer, Michal Shapira, Yongsheng Shi, Jonathan Staley, Navtej Toor, Stephanka Vanacova, Anders Virtanen, Markus Wahl, Yun-Xing Wang, David Weinberg, Sarah Woodson, Yi-Tao Yu, and Hani Zaher.**
- The Mentor-Mentee Lunch is one of the highlights of the annual conference for many attendees. It's a big job to organize the tables so that people sit in groups according to their topics of interest, then to make sure people find their tables and that the plan actually works out. Thanks to **Beth Tran & Nancy Greenbaum** for making the lunch a big success.
- The music at this year's annual meeting banquet was provided by one of our own. Thanks to DJ, **Francois Major** for excellent music, video, and special effects. The dancing went until 2 AM.
- Thanks, also, to Laval A/V tech helpers: **Gabriel Bossé, Chelsea Herdman, Lucile Fressigné, Alexandra Dallaire**, and the many other Mic runners from Sherbrooke and elsewhere. Their efforts made the talks run more smoothly and significantly reduced our A/V expenses.
- Thanks, also, to the many people who tweeted and re-tweeted the conference at #RNA2014, including: **Steve Mount @ongenetics, Gordon Simpson @ggsimpsonrna, Pedro Miura @pedro-miura, Andrew Feig @afeig_novi, Sean Ryder @Wormtown_Sean, Paul Garner @ppgardne, Phillip McCown @pjlmac, Alain Laederach @alaederach, Brenton Graveley @graveley, Eduardo Eyra @EduEyra, Jeff Coller @jmcoller, Erin @short2thepoint, Katrina Kutchko @kutchko, Gordon Simpson @djjgresham, E. Chapman @therealhelix, Emiliano Ricci @emi_aeruginosa, Mini Manchanda @Minibiomed, Jo Marie @Ms_JoMarie, Martin A. Smith @martinalexsmith,**



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	Jo Marie Bacusmo, Michael Meers, and Callie Wigington
Post-doc Reps	Oussama Meziane
Faculty Advisors	Katrin Karbstein & Beth Tran

Newsletter Editor

Brenda Peculis 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. She is grateful to her Eagle Eye Reviewers for catching the missing umlauts and other dyslexic issues.

Web Master

Chad Philips of New Vibe Web Design has been our web master since 2011. He's done a great job with the web site redesign and making it easier to access the site.

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. 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 *RNA* having an ISI Impact Factor that has stayed around 6 for many years running. It has also made *RNA* a good, consistent source of revenue for the Society. Last year there was a reorganization of the editorial staff, with almost a dozen new volunteers accepting the post of Editor.

Editor-in-Chief:	Timothy W. Nilsen
Editor:	Javier F. Caceres, Kathleen Collins, Elena Conti, Adrian R. Ferré-D'Amaré, Erik Sontheimer, Brenton R. Graveley, Rachel Green, Elisa Izaurralde, Daniel Kolakofsky, Rob Singer, Eric Westhof
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 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.

James McSwiggen, CEO; **Adrian Krainer**, President; **Rachel Green**, Past-President; **Sarah Woodson**, President Elect; **Andrew Feig**, CFO; **Mary O’Connell**, Secretary; Board Members **Maria Carmo-Fonseca**, **Adrian Ferré-D’Amaré**, **Fátima Gebauer**, **Kristen Lynch**, and **Jonathan Staley**

RNA 2014 Meeting sponsors



RNA Society-supported meetings

Reports from recent meetings supported by the Society

RNA-UK 2014, Lake District, UK
January 24-26 2014

The RNA-UK 2014 meeting brought together people working in different areas of RNA biology including 3' end processing, splicing, mRNA export, translation, localization and turnover as well as rRNA and miRNA biogenesis, regulation by long ncRNAs and miRNAs and dynamic RNA granules.

The **RNA Society** sponsored PhD and post-doc awards, which covered registration costs, went to **Chandani Warnasooriya** from David Rueda's lab (Imperial College, London) for her talk on "The role of Prp24 in unwinding the U2-U6 complex" and to **Amandine Bastide** from Anne Willis' lab (MRC Toxicology Unit, Leicester), for her talk on "Post-transcriptional control mediated neuro-protection in prion disease", respectively. In addition to the seven platform sessions, a vibrant poster session was held with **Clementine Delan-Forino** from David Tollervey's lab (Edinburgh University) winning the "Bioscience Reports" sponsored best poster prize for her work on "The TRAMP and exosome complexes".



Another important aspect was the opportunities to socialize, network or form collaborations with many participants, on the middle afternoon, taking part in an organized hill walk (through weather from several seasons), walking into cafes in Ambleside or enjoying the spa-fitness facilities at the venue. In the evenings, dinner as well as the drinks in the bar also provided additional opportunities for lively discussions. The organizers would also like to thank the "Biochemical Society" for critical financial support, our exhibiting sponsors and of course all

the participants for making the meeting so successful and great fun.

Vienna Microsymposium on small RNAs, Vienna, Austria
May 21-23, 2014

The Vienna Microsymposium on small RNAs reached its 9th edition in May 2014. Like in other years, it brought to IMBA established leaders in the field, young group leaders, advanced post-docs – "the future PIs" – and PhD students participating in the much celebrated and very competitive



PhD student workshop. Basic science was complemented by company talks on related topics.

The sponsorship from the RNA Society was essential for supporting travel and accommodation of workshop students. The award for the best student talk went to **Jan Suhren**, PhD student in the laboratory of Kazufumi Mochizuki, at IMBA. This year broke the long tradition of U.S. students winning the prize! Eureka for Europe! Jan was also awarded a certificate to attend a meeting organized by EMBO.

As in other years, the quality of the scientific talks was outstanding. In fact, the Microsymposium has established itself by now as one of the central international venues in the field of small RNA research. This is also evidence by the



continuously high attendance and the excellent critics and comments we receive. In other words... we are super-super happy with the Microsymposium on Small RNAs!



In 2014, we hosted ~250 people at the meeting. A major attraction is that the conference is a registration-free meeting (including the meals), a clear highlight for students and postdocs. This is especially true in the current times of limited funding.

Vienna is nowadays a hot spot for RNA Biology and we feel that the Microsymposium has contributed to achieve that status.

It is all set to celebrate, in 2015, the 10th edition of the Microsymposium. Stay in touch!

CRISPR2014 , Berlin, Germany May 14-16, 2014

170 scientists came together in Berlin, Germany, in May to present and discuss the newest data in the CRISPR-Cas field. Invited speakers were R. Barrangou, E. Charpentier, J. Doudna, E. Koonin, L. Marrafini, F. Mojica, J. van der Oost, K. Severinov, M. Terns, M. F. White and B. Wiedenheft.

At the meeting, new data covering the adaptation step were presented by several groups as well as structural data about the protein complexes involved in the immune defence reaction, the Cascade complex. Another major topic was the CRISPR-Cas type II, which was discussed in detail, including its applications in Genome Editing in higher eukaryotes.



CRISPR-Cas was recently detected as a defence mechanism of bacteria and archaea against foreign genetic elements like for instance viruses. This defence system is special over others since it is adaptive and heritable. Since last year it is known that the system can also be used for genome editing and gene expression regulation in eukaryotes.

The RNA Society sponsored three poster prizes (each 250 €), the prizes were awarded to **Ryan Jackson** (Montana State University) for his poster titled "Structure of the CRISPR RNA-guided surveillance complex from *Escherichia coli*", **April Pawluk** (University of Toronto) for her poster titled "Structural and functional characterization of phage-encoded Type I-E anti-CRISPR proteins" and **Ekaterina Semenova** (Rutgers University) for her poster titled "Autoprimered spacer acquisition in *E. coli* cells".

The organizers would like to thank the RNA Society for their generous support of this meeting.

1st International Symposium on RNA Granules in Human Disease and Viral Infection, Nova Scotia, Canada June 8-10, 2014

The 1st International Symposium on RNA Granules in Human Disease and Viral Infection (a.k.a. *RNA Granules 2014*) was held on the campus of Dalhousie University in downtown Halifax, Nova Scotia, Canada on June 8-10, 2014. By obtaining satellite meeting status and promotion on the RNA Society website, we were successful in attracting a diverse

international group of researchers to Halifax to discuss RNA granules in the spatiotemporal control of gene expression, and RNA granule dysregulation in infection and other disease processes. The 80 scientific registrants included 35 trainees and 45 PIs from 12 countries. The symposium was organized by co-Chairs **Craig McCormick** (Dalhousie University), **Bruce Banfield** (Queen's University) and **Andrew Mouland** (McGill University).

The meeting opened with a Keynote lecture delivered by **Richard Lloyd** (Baylor College of Medicine) who discussed the links between RNA granules and innate immunity. Additional topics covered included; the biogenesis and dynamics of RNA granules; RNA granules in neurological diseases and cancer; and RNA granules in infectious disease. A highlight of the symposium was a march (a walk, really) to the Halifax Citadel National Historic Site, escorted by a piper and drummer from the 78th Highlanders Pipe Band, followed by a demonstration of field guns, and banquet in the walls of the fortress.



Funding from the RNA Society was used for poster awards for three individuals (selected by their peers via ballot). The RNA Society Awardees are (from left to right in the attached photo): **Gemma Perez Vilaro**, Universitat Pompeu Fabra
Anais Aulas, Universite de Montreal
Vladimir Buchman, Cardiff University

The organizers acknowledge the support from the Canadian Institutes of Health Research, The Company of Biologists, and the Dalhousie Medical Research Foundation. Funding was also generously provided by a number of industry sponsors.

For more information about this symposium please visit <http://RNAgranules2014.com/> or contact any of the organizers.

Non-coding RNA - From Basic Mechanisms to Cancer, Heidelberg, Germany June 22-25, 2014

From June 22 to 25, 2014, the international conference on "Non-coding RNA - From Basic Mechanisms to Cancer"



attracted more than 220 participants to Heidelberg, Germany. Speakers included many of the leading scientists in what currently is the most rapidly evolving field in RNA biology. Exciting discoveries ranging from the function of microRNAs in cancer to novel molecular mechanisms of long non-coding RNAs were discussed. One hotly debated question was how to assess the coding potential of long RNAs. Given that a substantial fraction of long "non-coding" RNAs enter the cytoplasm and appear to

engage with ribosomes on short ORFs, purely coding and non-coding RNAs represent only the two extremes along a broad range of coding potentials. Another new concept was that altered tRNA levels in cancer cells may have a systematic effect on protein expression patterns. Significant advances in targeting oligonucleotides into tumor cells was reported; therapeutic effects are seen by inducing RNA interference or blocking ncRNA-protein interactions.

Basic funding for this conference was provided by the RNA@DKFZ cross program topic at the German Cancer Research Center (DKFZ) and by the CellNetworks Cluster of Excellence at Heidelberg University. The RNA Society supported the meeting by sponsoring two poster prizes, which were awarded to **Marta Montes** (University of Copenhagen) and **Anna Roth** (German Cancer Research Center).

2014 FASEB conference “Machines on Genes” Snowmass, Colorado June 22-27 2014

The 2014 FASEB conference “Machines on Genes” took place June 22-27 at the Base Village Conference Center in Snowmass, Colorado. The meeting, co-organized by Brandt Eichman (Vanderbilt University), Jeffrey Kieft (University of Colorado Denver), and Thomas Carrol (Ludwig-Maximilians University, Munich, Germany), attracted an international group of 94 participants from Australia, Japan, Saudi Arabia, Lithuania, the Netherlands, Germany, Austria, England, Scotland, and the United States.

The conference focused on the structural and molecular mechanisms that underlie diverse molecular transactions involving nucleic acids, including RNA and DNA repair, translation, transcription, catalysis, epigenetic control, replication, chromatin structure, CRISPR, and other exciting topics. Speakers presented research across nine sessions throughout the week. There were 36 invited speakers and an additional 13 speakers from contributed abstracts, 48 poster presenters, 7 poster awards, and 14 travel awards to students and postdoctoral fellows. Funds from the RNA Society provided fellowships for two junior scientists, **Joan Marcano-Velázquez** (University of Colorado, Batey lab) and **Erik Holmstrom** (University of Colorado, Nesbitt lab), who presented their work on riboswitches. Many leaders and members of the RNA Society were in attendance.

Highlights from the meeting included an exciting keynote address from Carlos Bustamante, and a very successful career panel and “Meet the Expert” session, which afforded students and post-docs the chance to query seasoned investigators for career advice and experiences. In addition, there was ample chance for building new collaborations during a group whitewater rafting trip and while discussing science at the poster sessions while savoring beer provided by Coda brewery from the University of Colorado Anschutz Medical campus.

Keep your eyes peeled for the Machines on Genes meeting to be held in UK/Europe in 2016!

10th annual RiboWest Conference 2014, Alberta, Canada June 28- 21st 2014

This year the RiboWest Conference in western Canada celebrated its 10th anniversary showcasing the quality and quantity of RNA research in this region and beyond. About 100 undergraduate and graduate students, postdocs and PIs attended the meeting that was organized for the fourth time by the Alberta RNA Research and Training Institute (ARRTI) at the University of Lethbridge. And once again all participants praised the high quality of the scientific sessions clearly proving that impressive RNA research takes place in this part of North America. As one participant said: “I hoped to make some new connections and get some feedback on my work. Both of these goals were achieved!” Clear highlights of this year’s event were the lectures by Joan Steitz, Brenda Bass and François Bachand who inspired everybody. To celebrate

RiboWest’s anniversary, all participants boarded a bus and spent one day at the beautiful Waterton National Park in the Rocky Mountains. There, we shared more science in the “Thirsty Bear Saloon” (who has had an RNA session in a Saloon before?) and enjoyed a free and sunny afternoon despite all lot of rain and flooding around us. In addition, we looked beyond actual RNA research with two inspiring lectures by Bonnie Schmidt (“Bringing life to science: why it matters”) and by Alexander Zehnder (“Dare, Despite Prevailing Opinions”). The RiboWest Conference 2014 concluded with a conference dinner and award presentations as the RNA Society had generously supported fellowships and awards for students attending this



event (see below). Photo above : Participants of the 10th Annual RiboWest Conference 2014 during the daytrip to Waterton National Park.

A special “RiboWest Outstanding Service Award” was given to Stephen Rader (second from left) to recognize his vision and leadership when founding the RiboWest Conference 10 years ago.

(Ute Kothe, and to right of Rader, Hans-Joachim Wieden and Tony Russell, Alberta RNA Research and Training Institute (ARRTI), University of Lethbridge)



Fellowship Winners (CAD 250 each):

Zev Ripstein, undergraduate student, University of Manitoba, Dr. Sean McKenna’s lab

Azra Lari, M.Sc. student, University of Alberta, Dr. Ben Monpetit’s lab

Anthony Khong, Ph.D. student, University of British Columbia, Dr. Eric Jan’s lab

Shanker Shyam Sundhar Panchapakesan, Ph.D. student, Simon Fraser University, Dr. Peter Unrau’s lab

Presentation Awards:

Azra Lari, M.Sc. student, University of Alberta, Dr. Ben Monpetit’s lab (CAD 150)

Laura Keffer-Wilkes, Ph.D. student, University of Lethbridge, Dr. Ute Kothe’s lab (CAD 150)

Aaron Robart, Postdoctoral Fellow, University of California San Diego, Dr. Navtej Toor’s lab (Book Award)

Poster Awards selected by Students

Craig Kerr, University of British Columbia, Dr. Eric Jan’s lab (CAD 150)

David McWatters, University of Lethbridge, Dr. Tony Russell’s lab (CAD 150)

Lucy Swift, University of Lethbridge, Dr. Roy Golsteyn’s lab (CAD 150)

Michael Gozdzik, University of Alberta, Dr. Richard Fahlman’s lab (Book Award)

Ian Andrews, University of Lethbridge, Dr. Hans-Joachim Wieden’s lab (Book Award)

Reba Murphy, University of Lethbridge, Dr. Marc Roussel’s lab (Book Award)

Poster Awards selected by Principal Investigators

Craig Kerr, University of British Columbia, Dr. Eric Jan’s lab (CAD 150)

Kirsten Reimer, University of British Columbia, Dr. Stephen Rader’s lab (CAD 150)

Priya Verma, University of British Columbia, Dr. Stephen Rader’s lab (CAD 150)

Elijah Dueck, University of Lethbridge, Dr. Ute Kothe’s lab (Book Award)

Reba Murphy, University of Lethbridge, Dr. Marc Roussel’s lab (Book Award)

Matthew Lau, National heart, Lung and Blood Institute, NIH, Dr. Adrian Ferré-D’Amaré’s lab (Book Award)

DNA Habitats and its RNA Inhabitants, Salzburg, Austria

July 3-5, 2014

This meeting assembled experts on RNA Biology, Virology and Evolution to discuss a fundamental new understanding of genetic novelty, code-generating, genome-formatting factors, multi-use nature for RNA agents and behavioral motifs of RNA-consortia, that act as natural genetic content operators in all fine-tuned steps and substeps of key cellular processes such as gene expression, transcription, translation, DNA recombination and repair, epigenetic imprinting (memory, learning), as well as various forms of innate and adaptive immunity. In this perspective DNA remains as a rather limited ecosphere habitat for an abundance of competing and cooperating RNA inhabitants that actively generate and constitute nucleic acid content.

The meeting “DNA Habitats and its RNA inhabitants” was organized by philosopher of language and biology Guenther Witzany as an update of the 2008 conference on Natural Genetic



Engineering and Natural Genome Editing at the same place, St. Virgil Conference Center in Salzburg, Austria, in cooperation with Luis Villarreal, Center for Virus Research, Irvine, USA

33 talks and 23 poster were presented. Key speakers such as John Mattick, Luis Villarreal, Ricardo Flores, David Prangishvili, Eugene Koonin, Valerian Dolja, Mart Krupovic, Gustavo Caetano Anolles, Eors Szathmary, Marilyn Roossinck, Peter Unrau, Keizo Tomonaga, Joan Curcio, Juergen Brosius, Eric Westhof, Corrado Spadafora presented fascinating insights into their current research results.

Poster presentation throughout all three days initiated fruitful discussions. Awards received for accomodation and registration support provided by the RNA Society were given to post-docs and students:

Yana Fedorova, Russian Federation, St. Petersburg State Polytechnical University

Denis Kutnjak, National Institute of Biology, Ljubljana, Slovenia

Gildas Lepennetier, Institut for Evolution and Biodiversity, Muenster, Germany

Ioulia Rouzina, Department of Mol Biol, Biochem and Biophysics, University of Minnesota

Michael Weber, Philipps-Universität Marburg, Germany

For more information (e.g., book of abstracts) about the Symposium : DNA Habitats and it's RNA inhabitants please visit website: www.rna-agents.at or contact the organizer Guenther Witzany (witzany@sbg.at)

FASEB Post-transcriptional control of Gene expression: Mechanisms of mRNA decay, BigSky, Montana July 6 – 11 2014

The 9th FASEB Summer Research Conference on “post-transcriptional control of Gene expression: Mechanisms of mRNA decay” was held from July 6th to 11th in Big Sky, Montana (USA). This meeting is intended to bring together researchers working on mRNA degradation using a variety of approaches and organisms. Attendance was up almost 20% from the previous meeting, indicating an expanding appreciation of the importance of mRNA decay in gene regulation.



Session topics included: Tales of tails, Decapping enzymes, Ribonucleases, Sequential action of ribonucleases in degradation pathways, Regulation of mRNA decay, Nonsense-mediated mRNA decay, Translation and its effects on mRNA stability, and sRNA and protein regulators of mRNA decay. These sessions included 58 talks presented by graduate students, post-docs and principal investigators. Two of the graduate student speakers received a travel award funded by the RNA society:

Vladimir Roudko, graduate student at the University of Strasbourg in Bertrand Seraphin's laboratory and collaborating with Elena Conti's laboratory, presented on “Functional studies of the Ccr4-Not deadenylation complex”.

Vivek Advani, graduate student at the University of Maryland in Jonathan Dinman's laboratory presented on

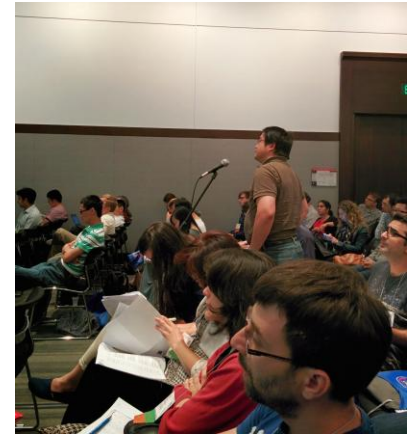
“Programmed -1 ribosomal frame shift signals in eukaryotes operate as mRNA destabilizing elements to regulate cellular gene expression”

We are very grateful to the RNA Society for their support of trainee participation in this conference

2014 Integrative RNA Biology – Special Interest Group, Boston, Massachusetts July 11, 2014

The 11th Special Interest Group meeting on Integrative RNA Biology (IRB-SIG) was held July 11, 2014 in Boston, MA. The annual meeting is designed to bring together world experts in RNA processing, non-coding RNAs, and computation to discuss recent advances in the integrated view of RNA biology and its relation to human disease. It aims to bridge the gap between the different research fields to foster new research ideas for deciphering the regulation of RNA processing. The meeting had speakers covering diverse topics in RNA biogenesis such as modeling and experimental determination of RBP binding sites (Chris Burge, Quaid Morris), single cell approaches for genome-wide investigations (John Calarco, Rahul Satija), the cross talk between alternative

3'UTRs and miRNA regulation (Christina Leslie), and alternative splicing during T cell activation (Kristen Lynch).



Alexander Junge from the Center for non-coding RNA in Technology and Health, University of Copenhagen (Gorodkin and Backofen Labs), **Clarisse van der Feltz** from Brandeis University (Pomeranz Krummel Lab), and **Brian Cole** from the University of Pennsylvania (Lynch Lab) received an RNA Society sponsored travel fellowship to cover their registration costs. The RNA Society sponsored poster prize of \$100 was awarded to **Brian Zid** from Harvard University who presented a poster on his

work “Promoter sequences influence cytoplasmic localization and translation of mRNAs during nutrient limitation”. The organizers thank the RNA Society for their generous support of the IRB-SIG 2014.

Upcoming Meetings of Interest

RNase H 2014
September 7-10, 2014
Airlie Centre, Warrenton, Virginia, USA

The RNase H 2014 is a bi-annual meeting, which for the first time is being hosted under the auspices of the RNase Society. The meeting focuses on all aspects of RNase H enzymes, including structure, biochemistry, and genetics, as well as the nature of their substrates.

Registration opened May 1, 2014, and RNA Society members receive a \$100 discount off the cost of registration. Organizers: Susana Cerritelli, Andrew Jackson, Robert Crouch
Website: www.masesociety.org/conferences/rnase-h-2014

25th tRNA Conference 2014
September 21 – 25, 2014
Grecotel Olympia Riviera Resort, Kyllini, Peloponnese, Greece

We are delighted to announce one of the most historic scientific events in the field of nucleic acids research, the 25th tRNA Conference, which will be held in Greece (21-25 September 2014).

Studies on tRNA were always in the spotlight, during and after the elucidation of genetic

code. From the first scientific meeting that took place in Cambridge, UK (1969), 24 Conferences have been organized and during the last decades many discoveries unraveled the role of Francis Crick's "adaptor molecule" in the flow of the genetic information, the evolution of the contemporary translational machinery and the regulation of many essential cellular events. This year's Conference will take place for the first time in Greece, celebrating almost 50 years of tRNA research and 25 fruitful and stimulating meetings. Many prominent scientists in the field of RNA biology, protein synthesis, genetic code, synthetic and systems biology of genomes from 25 countries will present their latest findings, with a special focus on the role of the dynamic networks of tRNA-related proteins in numerous diseases in human and the regulatory role of tRNA in both cytoplasmic and mitochondrial translation and beyond. The Conference organizers have confirmed participation of more than 80 invited speakers, including Paul Schimmel, Paul Agris, Dieter Söll, Susan Ackerman, David Engelke, Paul Fox, Annita Hopper, Sidney Kushner, Michael Ibba, Susan Martinis, Eric Phizicky, Henri Grosjean, Marina Rodnina and Marat Yusupov.

For more information on the history of the Conference, the scientific program and participation, please visit the official website (<http://www.trna2014.gr>).

Organizers and Conference Chairs: [Prof. Constantinos Stathopoulos](#) - [Prof. Denis Drainas](#)
School of Medicine, Department of Biochemistry, [University of Patras](#), Patras, Greece

15th Annual RiboClub Meeting
September 22 – 24, 2014
Orford, Québec, Canada

The 15th Annual RiboClub Meeting will be held in Orford (in the vicinity of Sherbrooke, Québec, Canada) on September 22nd - 24th. The meeting is organized by members of the Sherbrooke RiboClub (S. Abou Elela, F. Bachand, B. Bell, M. Bisailon, B. Chabot, D. Lafontaine, E. Massé, J.-P. Perreault, M. Scott, R. Wellinger). This year the meeting is organized in partnership with Yale Center for RNA Science and Medicine at Yale University.

The program includes keynote lectures by Alan Lambowitz and Christina Smolke, poster sessions and 17 invited speakers (A. Pyle, P. Bevilacqua, P. Baumann, J. Chen, S. Baserga, M. Barna, A. Giraldez, W. Gilbert, J. Steitz, J. Lykke-Andersen, I. Eperon, H. LeHir, S. Wolin, M. Rosenfeld, J. Martinez, J. Rinn and M. Rajewsky). Plenary sessions will cover the following topics: RNA technologies, RNA splicing, RNA stability, non-coding RNA and translation. The flavor of the year is "The ever-expanding diversity of RNA function". The program also includes an after-dinner presentation by Brian Nosek from the Department of Psychology at University of Virginia,

More information about the meeting and how to register can be found at:
http://www.riboclub.org/cgi-bin/OpeningSession/index.pl?page=registration_open_info&osid=12
<http://www.riboclub.org/OpeningSession/images/2014/RiboClub-2014-en.pdf>



The 16th Annual Rustbelt RNA Meeting (RRM)
October 17-18, 2014
Pittsburgh, Pennsylvania, USA

The RRM is a regional scientific meeting that gathers scientists from a number of major biomedical RNA research laboratories in the Midwest and Mid-Atlantic region. Many of these labs work at the interface of chemistry and biology of RNAs. The primary mission of the RRM organizers is to provide an opportunity for trainees to be actively involved in the meeting. For the 2014 meeting, we will continue the long-standing tradition of selecting abstracts from students and post-doctoral researchers for oral sessions and highlighting the work of our additional attendees at poster sessions.



Registration for this meeting will begin in August 2014 and the registration fee will include shared accommodations for trainees. There will be new travel scholarship awards available for undergraduate and minority students.

In addition, the RRM 2014 will include new features such as a career roundtable discussion moderated by leaders from academia and industry and dedicated opportunities for undergraduate students to participate in each oral session.

KEYNOTE SPEAKER: We are delighted to announce that Dr. Manuel Ares Jr. from the University of California, Santa Cruz will be joining us as our Distinguished Guest and Keynote Speaker. Dr. Ares is a longstanding leader in RNA research, HHMI Professor and Past President of the RNA Society. For more details, visit our website <http://www.rustbeltrna.org>

Organizers: Philip Bevilacqua, Penn State University, pcb5@psu.edu
Kausik Chakrabarti, Carnegie Mellon University, kausik@andrew.cmu.edu

4th Zing conference on Nucleic Acids
December 5-9, 2014
Riviera Maya, Mexico

The Zing Nucleic Acids conferences combine excellent scientific presentations and in-depth discussion in a relaxed environment on the Caribbean Sea. The program will comprise both plenary lectures from distinguished speakers and talks chosen from submitted abstracts. The focus will be an understanding of the processes involving RNA and DNA at the molecular and chemical level.

There are good opportunities for laboratories to present their work, and a number of financial awards available to speakers.

<http://www.zingconferences.com/conferences/4th-zing-nucleic-acids-conference/>

Organizers : David M.J. Lilley and Wei Yang



Gordon Research Conference: RNA Nanotechnology : Principles for Inter-RNA Interactions
February 1-6, 2015
Ventura, California, USA;

RNA molecules can serve as powerful building blocks for the bottom-up fabrication of nanostructures and nanodevices. It can serve as boiling-resistant anionic polymer material to build robust nanostructures with defined size, shape and stoichiometry. In medical application, the entire nanoparticles including the core scaffold, targeting ligands, therapeutic modules and fluorogenic elements can all be composed of RNA exclusively. Over the last five years, there has been a burst of publications on RNA nanostructures, indicating increasing interest in RNA nanotechnologies in diverse fields such as microbiology, immunology, biochemistry, biophysics, chemistry, nanomedicine, pharmacology, optics, molecular computation, molecular biology, cell biology, structural biology, and polymer industry. The intent of this GRC is to promote transformative advances of RNA nanotechnology in medicine, industry, environment and other nanotechnological applications.

The meeting will cover a range of topics, including: structure and folding of RNA nanoparticles; physical and chemical approaches in RNA nanotechnology; computation, prediction, and modeling of RNA nanoparticle structures focusing on inter-molecular interactions; application of RNA nanoparticles in therapeutics for the treatment of diseases; and finally two sessions covering the exciting new area of extracellular RNA for biomarker and therapeutic development.

Fellowships for graduate students, postdocs, and journal faculties are available. Online application is currently open at the meeting website. <http://www.grc.org/programs.aspx?id=16896>

Similar to all other GRC conferences, due to the limitation of meeting size, prior approval for application by the meeting chair is required before formal registration. For more information, please contact Hui Li at h.li@uky.edu. Chair: Peixuan Guo, University of Kentucky, USA Co-Chair: *Neocles Leontis*, Bowling Green State University, USA

Gordon Research Conference : RNA Editing and Modification
March 8-13 2015
Renaissance Tuscany Il Ciocco Resort in Lucca, Italy

We are pleased to invite you to attend the Gordon Research Conference (GRC) and associated Gordon Research Seminar (GRS) on RNA Editing and Modification (<http://www.grc.org/programs.aspx?id=12665>). This year's conference will be held for the first time in Europe on March 8-13, 2015 at the Renaissance Tuscany Il Ciocco Resort in Lucca, Italy. The GRC brings together researchers at the forefront of the field of editing and modification of nucleic acids and will include around 50 invited speakers, as well as selected speakers from submitted abstracts, representing all areas of RNA and DNA editing and modification systems. Registration is now open and applications will be accepted until February 8, 2015

This year's meeting will include a special focus on a combination of chemical and biological approaches to understanding the overall diversity of the genome and transcriptome, and the consequences of this diversity for development and disease. Meeting chairs are Michael Jantsch (*University of Vienna, Austria*) and Jane Jackman (*Ohio State University, USA*).

The associated GRS (organized by Ashanti Matlock, *Ohio State University*) takes place at the same location on March 7-8, 2015, and will provide an additional opportunity for junior researchers to present their work in oral and poster sessions.



Employment Opportunities

If you are a member and would like to have your employment opportunity listed on this page, follow the instructions on [this page](#) (you must log in to view the page). If you are interested in applying for a position, please contact the person listed in the advertisement.

Sign up for our [jobs feed](#) and receive email notification when we post to this page.

Faculty positions

POSITION: Chair of the Department of Biology

QUALIFICATIONS: The successful candidate should have an outstanding record of research accomplishment, wide national visibility, and demonstrated leadership experience. The Chair must be committed to excellence in teaching, including support of innovative learning paradigms. The Department seeks candidates who use cellular and molecular approaches to investigate basic biological questions with application in the health sciences. The Chair will have an exemplary record of scholarly achievement, a vibrant record in externally funded research (including NIH support), and outstanding leadership qualities and administrative abilities. It is expected that candidates for this position will have an earned doctorate in the biological sciences and experience sufficient to merit appointment with tenure at the rank of Full Professor. The Chair will work with the faculty toward a vision for the future of the Department and toward further advancement of its program through a continuing commitment to excellence in discovery and learning.

RESPONSIBILITIES: Baylor Biology is building a world-class faculty with emphasis on innovative research as a path to discovery of new knowledge. The chair will advance the department's prominence in research and education at the graduate and undergraduate levels. The chair will lead an expansion in the department's research in cell and molecular biology with novel applications in the health sciences. The chair will provide active leadership that sustains the diverse group of current faculty investigating fundamental biological science in its many aspects, including ecology and organismal biology. The Chair should have a clear, strategic vision for further advancing the research and education programs in the Department.

RANK AND SALARY: Commensurate with qualifications and experience.

SUBMISSION DEADLINE: Applications will be accepted until the position is filled.

APPLICATION PROCEDURE: Please submit a letter of application, current curriculum vitae, and transcripts. Include names, addresses, and phone numbers of three individuals from whom you have requested letters of recommendation to:

Martin M. Baker, Vice President
Baker and Associates, LLC
4799 Olde Towne Parkway, Suite 202
Marietta, GA 30068

www.baasearch.com<<http://www.baasearch.com/>>

Materials may be submitted electronically to: mbaker@baasearch.com<<mailto:%20mbaker@baasearch.com>>.



Postdoctoral Positions :

[NIH-funded position addressing the roles of RNA helicases in human cells](#)

Posted on [July 28, 2014](#)

We are currently looking for a postdoc with experience in NextGen sequencing/bioinformatics and basic molecular biology techniques to fill an NIH-funded position addressing the roles of RNA helicases in human cells. Prior experience with mammalian tissue culture is a plus. Please apply directly to Dr. Elizabeth Tran via email, ejtran@purdue.edu, and include a CV, list of peer reviewed publications and 3 references. All applicants should have a minimum of two first author papers in a peer reviewed journal.

[Post-Doctoral position open in the laboratory of Dr. Paul F. Agris](#)

Posted on [July 28, 2014](#)

Post-Doctoral position open in the laboratory of Dr. Paul F. Agris within the RNA Institute (SUNY). Applicants are sought with expertise in the area of structural biology by RNA-NMR; RNA interactions with proteins, peptides, small molecules and other RNAs. Three modern high field NMR instruments with cryoprobes, one designed especially for RNA are available. The RNA Institute is known for its structural biology of RNA and RNA complexes using various biophysical techniques.

Applicants should submit:

- 1) complete resume',
- 2) names and contacts of three references and
- 3) a brief description of RNA research experience that includes those approaches/technologies with which the applicant has extensive experience.

The RNA Institute provides a unique research resource environment for some 54 principal investigators and ~300 researchers conducting RNA science and its applications to human health problems, technology development and drug discovery in New York's Capital District. Albany has the cultural activities of a large city but within the environment of a small city atmosphere, ready access to the Adirondacks, Berkshires, the NY lake district, Boston, and NYC.

Contact: PAgris@albany.edu

[RNA Biologist – The Chemical Biology of G-Quadruplexes in RNA](#)

Posted on [July 28, 2014](#)

Following the award of an ERC Advanced Grant to Professor Shankar Balasubramanian (<http://www.ch.cam.ac.uk/group/shankar>), we seek to appoint a postdoctoral RNA biologist to explore the structure, function and biology of four-stranded RNA G-quadruplex structures. This interdisciplinary project builds on our experience in the understanding of non-canonical G-quadruplex nucleic acid structures. We recently demonstrated the existence of G-quadruplex structures in the DNA of human cells (Nature Chem. 5, 182, 2013), and are now extending our studies to RNA G-quadruplexes (Nature Chem. Biol. 3, 218, 2007; NAR 2012, 40, 4727, 2012; Nature Chem. 6, 75, 2014).

The candidate will have a sound practical and intellectual background in RNA biology and structure, excellent skills in molecular and cell biology and technical expertise in RNA manipulation and analysis. Candidates are expected to be excellent communicators, independent thinkers, demonstrate an intellectual capacity for innovation and be able to collaborate effectively to address the goals of this major initiative. The postholder will be primarily based at our Cambridge Institute Laboratory. Applicants should possess (or be about to receive) a PhD in a relevant discipline.

The post is available immediately, with funds available for 2 years in the first instance.



To apply online for this vacancy, visit <http://www.jobs.cam.ac.uk/job/4525>

Please ensure that you upload a 2-page Curriculum Vitae (CV), a covering letter and publications list in the Upload section of the online application. If you upload any additional documents that have not been requested, we will not be able to consider these as part of your application.

For queries regarding applying online for this post, please contact Leanne Moden, PA to Professor Shankar Balasubramanian, email: herchel-smith-pa@ch.cam.ac.uk.

Please quote reference MA03899 on your application and in any correspondence about this vacancy. The Department holds an Athena SWAN bronze award for women in science, technology, engineering, mathematics and medicine.

The University values diversity and is committed to equality of opportunity. The University has a responsibility to ensure that all employees are eligible to live and work in the UK.

Postdoctoral Scholar Positions

Posted on [July 11, 2014](#)

Postdoctoral scholar positions are available at the Nanobiotechnology Center of the University of Kentucky and the NCI Cancer Nanotechnology Platform Partnerships (CNPP) program directed by Dr. Peixuan Guo (<http://nanobio.uky.edu/Guo/peixuanguo.html>). Strong background in RNA chemistry, RNA conjugation, Genetics, or Cell Biology is preferred.

To apply, please contact Dr. Hui Zhang at email: hui.zhang@uky.edu. The University of Kentucky is an Equal Opportunity and Affirmative Action Employer.

H3 Biomedicine Postdoctoral Program

Posted on [June 30, 2014](#)

The H3 Biomedicine Postdoctoral Program provides an environment for scientists to undertake innovative academic-focused research projects in a biotech industry setting. H3 Biomedicine offers a framework for scientists to design and execute their research plans and provide appropriate training with a goal to present research at major scientific conferences and publication of results in leading peer-reviewed journals.

We seek highly motivated and enthusiastic individuals to join the H3 Biomedicine Postdoctoral Program based at our facility in Cambridge, Massachusetts. Individuals will interact with a team of scientists working towards understanding the role of RNA splicing in cancer and identifying novel therapeutic approaches for the treatment of targeted patient populations. H3 Biomedicine provides a state-of-the-art research facility and interactions with scientists from multiple disciplines including bioinformatics and genomics, target discovery, structural biology, enzymology, drug discovery and chemistry.

Research Areas:

H3 Biomedicine has built a world-class research effort that applies cancer genomics and next generation chemistry geared towards the identification of novel cancer medicines. A major area of research at H3 Biomedicine is in RNA biology and RNA splicing in cancer. We have pioneered methods to drug the spliceosome and apply this knowledge to modulating deregulated cancer-specific splice events. Our ultimate goal is the discovery and development of novel therapies for the treatment of genomically-defined cancer patients.

We seek to attract postdoctoral candidates interested in pursuing research in the following three areas:

- Exploring the disease mechanisms of spliceosome mutations in cancer (e.g. SF3B1, U2AF1, SRSF2) and nodes for therapeutic intervention with small molecule splicing modulators



- The structural basis for splicing modulation approaches and aberrant splicing in SF3B1 mutant cancers.
- Discovery and validation of driver RNA splicing alterations in cancer and identification of target modulation strategies to enable precision medicine.

Program Highlights

- Regular interactions with mentor, and academic external advisor as appropriate, to formulate and execute research plans
- Regular presentations at Scientific Founders Meeting to the H3 Biomedicine senior scientists and our academic founders Stuart Schreiber, PhD and Todd Golub, MD.
- Presentation/publication of research at major scientific conferences/journals
- Potential for transition into full-time employment should appropriate positions be available at the end of the postdoctoral position

Qualifications

The applicant must have completed, or is anticipated to complete within the next 3 months, a Ph.D. in Biology, Cancer Biology, Molecular Biology, Structural Biology, Biochemistry or a related field. Previous research experience in the area of RNA biology/splicing, cancer biology or structural biology/crystallography is desirable. Candidates should have displayed an ability to produce high quality research in peer-reviewed journals

H3 Biomedicine Inc. is a privately-held, uniquely-structured oncology discovery enterprise whose sole mission is to become a prolific source of new drugs that treat more human cancers with greater success. H3 Biomedicine is applying the expertise of leading scientists to the integration of insights from cancer genomics with innovative capabilities in synthetic chemistry and tumor biology to pursue the most promising current opportunity in cancer therapeutics: patient-based, genomics-driven, small molecule drugs

Interested candidates may forward a CV to h3_career@h3biomedicine.com www.h3biomedicine.com

[Postdoctoral Position Studying the Molecular Mechanisms of RNA Quality Control](#)

Posted on [June 20, 2014](#)

A postdoctoral position studying the molecular mechanisms of RNA quality control is immediately available in Dr. J. Robert Hogg's group at the National Heart, Lung, and Blood Institute, National Institutes of Health, Bethesda, MD. The laboratory is an RNA biochemistry and molecular biology research group established under the Earl Stadtman Investigator program, designed to facilitate high-risk, high-impact research (<http://irp.nih.gov/careers/careers-in-action/science-the-stadtman-way>). The research of the group and its members is supported by the collaborative and interdisciplinary NIH intramural program and state-of-the-art proteomics, high-throughput sequencing, microscopy, bioinformatics, flow cytometry, human iPS, mouse transgenic, and other core facilities.

The laboratory is focused on using biochemical methods to study the assembly and functions of viral and cellular messenger ribonucleoprotein complexes. A major tool in these efforts is a novel system for RNA hairpin tag-based affinity purification of messenger ribonucleoproteins from human cells followed by mass spectrometry. This approach led to the identification of a mechanism by which the key NMD factor Upf1 is able to directly sense 3'UTR length in the process of decay target discrimination (see Hogg and Goff, Cell, 143, 379-89 for more details). The lab is now pursuing several projects designed to understand the molecular mechanisms underlying 3'UTR length sensing by Upf1 and subversion of this process by retroviral RNA elements. These efforts require a combination of molecular, cell biological, biochemical, and proteomic techniques in mammalian cell culture and in vitro systems. More information is available at <http://www.nhlbi.nih.gov/research/intramural/researchers/pi/hogg-robert/>.

Requirements:

Interested candidates must have received a Ph.D. or M.D. within the past five years in molecular biology, cell biology, biochemistry, genetics or a related discipline and be highly motivated to participate in and design innovative research programs. The candidate will be supported with an excellent intramural NIH fellowship in a stimulating and interactive research environment at NIH.



To apply:

Please email a cover letter indicating preferred start date and research area, CV, summary of research accomplishments, and names and contact information for at least three references to:

Dr. J. Robert Hogg Email: j.hogg@nih.gov

The NIH is dedicated to building a diverse community in its training and employment programs.

DHHS/NIH is an Equal Opportunity Employer

Postdoctoral Fellow in Computational RNA Genomics

Posted on [June 20, 2014](#)

A Postdoctoral Fellow position in Computational RNA Genomics is available at the Genome Center and the Biomedical Engineering Department of the University of California, Davis. The postdoc will be working as part of a newly forming team in the Aviran lab (www.bme.ucdavis.edu/aviranlab) and will be developing probabilistic models and statistical inference algorithms for genomic big data analysis. Of particular interest is research relevant to our NIH-funded projects in RNA genomics and in structural RNA biology. The developed methods will be applied to problems in RNA systems and synthetic biology.

Required Qualifications

We are looking for a highly motivated, creative, and enthusiastic individual, with interest in RNA genomics, folding dynamics, or rational design. Candidates should have a PhD in bioinformatics, statistics, applied math, electrical engineering, computer science, biophysics, or a related field. Preference will be given to candidates with experience in probabilistic modeling and computational statistics or machine learning. Specific skills that are strongly preferred include proficiency in programming and scripting (using, e.g., Python, R, Matlab, or C/C++) and in hands-on genomic data analysis. Excellent writing and communication skills in English are required.

Interested candidates should submit a cover letter stating their interest in our research directions and why they are interested in joining, a CV with list of publications, and contact information for three references. Please combine all information into a single PDF and send to Dr. Aviran (saviran at ucdavis dot edu). Applications will be accepted immediately, with a proposed start date of Summer 2014. Duration: 3 years, depending on performance. NIH funding for this project has been recently granted through a K99-R00 award.

Review of applications will continue until an outstanding candidate has filled the position. The successful candidate will join a young, vibrant, and rapidly growing Biomedical Engineering department, a large and active Genome Center, and collaborative genomics and computational biology communities at UC Davis. For more information, please visit www.bme.ucdavis.edu/aviranlab/positions/.

Regulation of Cancer Genes by RNA Binding Proteins and Non-Coding RNAs

Posted on [June 19, 2014](#)

A post-doctoral research position is available in the laboratory of Dr. Aaron Goldstrohm in the Department of Biological Chemistry at the University of Michigan Medical School. The research project focuses on regulation of cancer genes by RNA binding proteins and non-coding RNAs. Candidates should hold a Ph.D. in biochemistry, genetics, cellular or molecular biology or related field. They should have strong interests in gene regulation and RNA biology and be skilled in molecular and cellular biology techniques.

The University of Michigan and the Goldstrohm Lab provide an outstanding training environment. In addition to abundant scientific and intellectual resources, the post-doctoral fellow will benefit from career and professional development opportunities.

To apply, candidates should submit curriculum vitae with publication record and contact information for three references. Please include a cover letter describing career goals, research experience and interests.

To learn more about our lab and research, please visit: <http://www.biochem.med.umich.edu/?q=agoldstrohm>



[Study Protein-RNA Complexes Involved in HIV Alternative Splicing](#)

Posted on [June 4, 2014](#)

A postdoctoral position is available to study protein-RNA complexes involved in HIV alternative splicing in the Department of Chemistry at Case Western Reserve University. The goal of this NIH funded project is to understand the structural and biophysical basis of how host proteins recognize HIV RNA elements to control the balance of viral splicing events. The position will require the elucidation of several high-resolution structures of isolated RNA elements and protein-RNA complexes as well as determining physicochemical parameters associated with these molecules.

The environment for RNA and protein structural biophysics at Case Western Reserve University is outstanding, with state-of-the art NMR spectrometers equipped with cryogenic probes (every field strength 500-900 MHz), instruments for X-ray crystallography, cryo-electron microscopy and other biophysical instrumentation. Major biophysical and biochemical instrumentation available in the PI's personal lab include titration and scanning calorimeters (Microcal), two AKTA FPLC instruments, two Innova tissue culture incubators and several computer workstations for data analysis and structure calculations.

In addition to the strong instrumentation, the intellectual environment at CWRU is exceptional where barriers to collaborations are low. The PI maintains active collaborations with members of the Center for AIDS Research and interacts routinely with members of the Center for RNA Molecular Biology, Departments of Biochemistry, Pharmacology and Microbiology. Moreover, Cleveland offers a pleasant cultural setting for work and home life. The ideal candidate will have a recent PhD in Biochemistry or Biophysics, a strong academic record, proven experience in biomolecular NMR spectroscopy or X-ray crystallography and fluent English language skills. Previous experience with RNA biochemistry is preferred.

To apply, please email a statement of research interests, CV and the names and contact information for three references to Dr. Blanton S. Tolbert (bst18@case.edu). Informal inquiries are also welcome.

Diversity Statement:

In employment, as in education, 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.

Reasonable Accommodations:

Case Western Reserve University provides reasonable accommodations to applicants with disabilities. Applicants requiring a reasonable accommodation for any part of the application and hiring process should contact the Office of Inclusion, Diversity and Equal Opportunity at 216-368-8877 to request a reasonable accommodation. Determinations as to granting reasonable accommodations for any applicant will be made on a case-by-case basis.

[Postdoctoral Position to Investigate RNA-mediated Meiotic Regulation in Fission Yeast](#)

Posted on [May 29, 2014](#)

Available immediately, term of appointment up to 3 years

The Wise lab in the Center for RNA Molecular Biology at Case Western Reserve University is inviting applications for a postdoctoral scientist to spearhead our efforts to understand the molecular basis of changes in RNA metabolism during the transition from proliferative growth and at successive stages of meiotic differentiation in fission yeast. Previous work has elucidated two unusual regulatory strategies that come into play as this simple developmental pathway unfolds:

- Increased accumulation of early meiotic mRNAs, driven by enhanced stability due to modulation of RNA binding by a protein that senses methylation of adenosine residues
- Increased accumulation of middle meiotic mRNAs, driven by enhanced co-transcriptional RNA processing mediated by a meiosis-specific transcription factor



The project will utilize a combination of genome-wide and traditional molecular genetic approaches to dissect the cascade of events through which these sequential but interconnected regulatory mechanisms ensure proper temporal control of gene expression. As counterparts of factors implicated in fission yeast meiotic regulation have recently been uncovered in budding yeast, flies and mammals, it may be illuminating to extend our studies through collaborations with RNA Center colleagues. The Center for RNA Molecular Biology provides a stimulating and highly interactive research environment in which trainees benefit from the high concentration of faculty, students and postdocs with relevant expertise.

The ideal candidate will hold a recently (or soon to be) awarded Ph.D. in Molecular Biology, Biochemistry or a related discipline and have laboratory experience working with RNA. A strong track record of self-directed research and excellent technical and communication skills are also essential. Expertise in bioinformatics and/or genetic manipulation is highly desirable. Salary support (NSF-funded) will be provided at a level commensurate with experience.

Interested individuals should send a cover letter including a description of research interests and career goals, as well as a detailed CV and the names of three references (with e-mail addresses and phone numbers) to Jo Ann Wise, preferably via e-mail (jaw17@case.edu).

[Postdoctoral Position in the Laboratory of Dr. Pedro Miura](#)

Posted on [May 27, 2014](#)

A postdoctoral position is available starting September 1st, 2014 in the laboratory of Dr. Pedro Miura, Assistant Professor in functional genomics at the University of Nevada, Reno, Department of Biology. Projects will focus on the regulatory mechanisms governing extended 3'UTR and circular RNA formation, and their functional impact in the nervous system. *Drosophila*, mice and mammalian tissue culture will be used as model systems. High-throughput sequencing and CRISPR/Cas mediated genome engineering approaches will be employed.

Qualifications include a PhD in the biological sciences and a strong publication record. Previous experience in bioinformatics, molecular biology, mouse genetics and/or fly genetics is preferred, but not required.

Candidates should send their CV, letter of introduction, statement of career plan/goals, and contact information for 3 references to: Dr. Pedro Miura (miuragenomics@gmail.com)

Lab website: <http://www.post-transcriptional.com>

