RNA Society Newsletter

August 2009

RNA Society

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From the President's Desk, Reinhard Lührmann



scientific program.

Now that this year's Annual Meeting of the RNA Society – its 14th – is behind us, I would like to thank everyone who made a contribution to its success. Special thanks are due to the lead organizer **Andrew Feig**, who together with his co-organizers **Narry Kim**, **Benoit Chabot** and **Fatima Gebauer** did an excellent job in putting together a fine

It was a special pleasure for me to present the Society's Lifetime Achievement Awards. **Anita Hopper,** who is a Professor of Molecular Biology at the Ohio State University, Columbus, received the Lifetime Achievement Award for Service. She had great influence on the early development of the RNA Society. Anita has also served as Director and as President of the RNA Society and was involved in setting up the Society's rules. (Continued on p2)

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Tom Cech, who is an investigator with the Howard Hughes Medical Institute and Professor of Chemistry and Biochemistry at the University of Colorado at Boulder, received the Lifetime Achievement Award for Science. In the early 1980s Tom and his group discovered self-splicing RNA and the term "ribozyme" was born. revolutionized our thinking about enzymes, as previously it had been assumed that only proteins can catalyze biological reactions. In 1989 Tom was awarded the Nobel Prize in Chemistry for this discovery. Many other seminal discoveries in his laboratory such as the telomerase reverse transcriptase (TERT) and the protection of telomere ends by proteins such as POT1 have launched new



and exciting areas in biological research. These more recent discoveries were made in Tom's laboratory while he was President of the Howard Hughes Medical Institute, a post from which he stepped down earlier this year.

A number of prizes were awarded to young post-docs and graduate students. The RNA Society / Scaringe Young Scientist Award was established to recognize the achievement of young scientists engaged in RNA research and to encourage them to pursue a career in the field of RNA. The 2009 RNA Society / Scaringe Award for a graduate student was conferred on **Jeremy Wilusz**, who is currently working at the Cold Spring Harbor Laboratory with **David Spector**. The Award for a post-doctoral fellow was received by **Shobhu Vasudevan**, currently working with **Joan Steitz** at the Yale University School of Medicine.

At the Award Ceremony, a number of persons were also honored for best posters in several categories. The ACS Chemical Biology award for "Innovative Use of Chemical Biology Applied to the Study of RNA" was presented to Ryan Maccheschi (S. **Butler's** group, University of Wisconsin, Madison) for his poster A high-throughput screen of smallmolecule effectors of HIV-1 RNA structure identifies a class of drugs that affect translational frameshifting". The NSMB poster prizes awarded were: for "Molecular Biology and Biochemistry", to Gene-Errol Ringpis (R. Aphasizhev's group, University of California, Irvine) for his poster Modularity of trypanosomal RNA editing TUTases; for "Genetics and Development", to Zoya Kai (A. Pasquinelli's group, University of California, San Diego) for the poster Regulation of let-7 microRNA biogenesis in C. elegans; for "Biophysics and Structural Biology", to Gang Chen (I. Tinoco's group, University of California, Berkeley) for the poster Triplex structures in an RNA Pseudoknot enhance mechanical stability and increase *efficiency of –1 frameshifting*. The Nature Reviews Molecular and Cell Biology Prize for Innovation and Interdisciplinary Research went to Kosuke Fujishima (A. Kurai's group, Keio University, Japan) for his poster Tri-split tRNA: a novel type of transfer RNA produced from three transcripts via trans-splicing.

Congratulations to all of these persons! I would like to thank all the members of the various Awards Committees who worked hard to evaluate the entries. However, and perhaps most importantly of all, I would like to acknowledge the efforts and achievements of all those who described their work in posters and talks, and who thus contributed to the overall success of RNA 2009.

Alongside the scientific sessions and workshops, the RNA 2009 meeting incorporated once again its mentor-mentee lunch and its career and scientific communications workshops. These incentives are of great value for the younger scientists of the RNA Society and give them the possibility to discuss informally concrete aspects of their own career planning inside and outside academia with editors of journals, with established scientists and with managers from industry.



This year, we held for the first time a dinner with the topic "RNA and Society" (instead of the "Women in Science" dinner held at previous meetings). **Keith Yamamoto**, the keynote speaker, gave a very impressive and at the same time entertaining survey of changes in the peer-reviewing system for NIH grants and future strategies for establishing the best possible system for review and funding of research.



The RNA 2009 meeting was opened on the first evening by a session with two invited speakers, **Shiv Grewal** (NIH, Bethesda) and **Robert Darnell** (Rockefeller University, New York), who gave excellent talks on *RNAi-medicated epigenetic control of the genome* and *Decoding protein–RNA regulation with HITS-CLIP maps*, respectively. I think that this format, which has been tried already at earlier meetings, is very successful and could become an established tradition. It has a number of advantages. For example, for those who arrived on the first day after an 8–10-hour flight it is quite a

challenge to sit awake on the first evening and follow a full session of 10–12 short talks. Furthermore, this format gives us the possibility to invite scientists from areas of RNA biology that are newly budding or from research communities that we should make more effort to integrate into the RNA Society, and also to learn about emerging techniques that could become relevant for members of the RNA Society. I think that we need such an instrument.

RNA 2009 will be the last meeting in Madison for a number of years, as the lecture facilities at the University of Madison are to undergo substantial renovation. Of the 14 meetings of the RNA Society held so far, we have held eight in Madison. I would therefore like to thank the University of Wisconsin for affording us hospitality and, above all, our colleagues at the University who have been so generous with their time in acting as lead or co-organizers. Next year the meeting will be in Seattle and in 2011 we will meet for the first time in Japan, in Kyoto. The Meetings Committee has decided to hold our 2012 meeting at the University of Michigan, before returning to Europe in 2013. Personally I would be very pleased if we could boost our credentials as a truly international society by soon holding a meeting in the southern hemisphere.

I would like to end my letter by congratulating all of the newly elected officers of the RNA Society. These are **Rachel Green, David Brow** and **Gerhart Wagner** as Directors, and **Roy Parker**, who will be President of the RNA Society in 2010. I wish them and the Society every success.

Save the RNA Society History & Build its Future!

As part of our ongoing efforts to ensure the continued success of the RNA Society and track its history, the Society has implemented a process to collect all existing and past business documents and archive them in a larger collection. This collection will provide all (past and present) Society data to officers and directors should an unforeseen disaster strike our operations. If in your capacity as an officer, director or volunteer of the RNA Society you have files you wish to store in our repository, please contact Evelyn Jabri (ejabri@gmail.com).



Summary of Award presented at RNA 2009:

RNA Society Lifetime Service Award, 2009 Anita Hopper

The RNA Service award is given in appreciation and acknowledgement of outstanding service to the RNA Community. The overall mission of the RNA Society is to facilitate sharing and dissemination of experimental results and emerging concepts in RNA Research. Each year the Board of Directors identifies the recipient of this



award as an individual who has made exemplary contributions to these goals.

This year's award for Service to the RNA Society went to Anita Hopper. Anita has been very active in the Society from its beginning. She was elected to the Board of Directors and served from 1998-1999. She then ran and was elected to President of the RNA Society in 2003, acting as Past President in 2004. It was Anita who initiated the awards for Lifetime Service and Lifetime Achievement to acknowledge those who have contributed (and continue to act!) to enhance the awareness and dissemination of RNA science and promotion of the RNA Society. Our thanks to Anita for her many years of service to the Society and the variety of contributions she has made to improve RNA science.

Anita is currently the Chair of the Department of Molecular Genetics at The Ohio State University. Her research focuses on the study of the mechanisms of transport and localization of RNAs and proteins in a cell to generate the subcelluar distribution, focusing particularly on the nucleus.

RNA Society Lifetime Achievement in Science Award Tom Cech

Reinhard Lührmann, as President of the RNA Society, introduced this year's Lifetime achievement award winner, **Tom Cech**.

Tom got his Ph.D. in Chemistry at the University of California at Berkeley working with John Hearst. From there he went to do a postdoc with Mary Lou Pardue at MIT and take a faculty position at University of Colorado at Boulder. He revolutionized the concept of RNAs as enzymes and this spurred the current view of the RNA World. Tom had very recently given up an appointment as President of HHMI and was returning to his

research laboratory at the University of Colorado-

Boulder, stating he was "ready to return to the adventure of my own research and teaching".

Reinhard reminded us that Tom's Nobel Prize in 1989 was only one of many awards he has





received, with others including the Pfizer award, the Lasker award and a Heineken award.

Tom was a charter member of the RNA Society and the first President of the Society. Reinhard commented about the remarkably large number of students and postdoctoral fellows that trained in Tom's laboratory who have gone on to prominence as head of their own research laboratories, in Biotechnology or in the publishing world.

Tom accepted the award and then began his talk with a photo of himself as a child, growing up in Iowa. He acknowledged winning a science fair award at the age of 12 for a project entitled "Molecular Structure as Determined from Crystal Form.". He then admitted he's still trying to do that.



After completing their postdoctoral training at MIT and Harvard, respectively, Tom and his wife Carol took about a month off to go to Copenhagen where Tom worked in the lab of **Jan Engberg.** There he learned about Tetrahymena, a single celled eukaryote that was soon to offer up some serious challenges before revealing interesting secrets to Tom and his colleagues.

In 1980 Tom and **Art Zaug** received an unexpected result as they were trying to uncouple cotranscriptional splicing. Art was able to separate the two activities, and he was combining the RNA with

extract, Mg⁺², and GTP. They saw the expected splicing event. Art was very careful to do all needed controls and surprisingly found identical splicing patterns in samples that had RNA with Mg and GTP with no extract. Tom was convinced the RNA they were using had some level of protein contamination. Removing or denaturing this protein contaminant was the focus of efforts in Tom's lab over the next year. While preps appeared clean, the splicing event was still occurring. This lead **Paula Grabowski** to present a Christmas gift to Tom: a daisy where alternate petals read "it's a protein" and "it's not".

Somewhere along the way, Tom realized that the intron within the pre-ribosomal RNA had the information needed to direct site-specific cleavage. The catalysis of this reaction and specifically the mechanism of self-splicing of group I introns was established, and Tom was soon headed to Stockholm with his family, and guests **Art Zaug and Paula Grabowski**.

Back in the lab, research on the structure of the group I introns progressed. They obtained the crystal structure of first the P4-P6 domain of the RNA, worked on by **Anne Gooding** and **Jennifer Doudna** in Boulder and completed by Jennifer in her independent lab at Yale.

Barb Golden in the lab began working with a much larger RNA that was active as a catalyst, and that crystal structure was determined at modest resolution. By 2004 the **Strobel, Cech** and **Golden** groups had independently solved higher-resolution structures of three different group I introns. **Brenda Bass** and **Francoise Michel** had previously predicted that there would be a specific G binding site in the catalytic active site, and the crystal structure allowed this to be seen clearly.

Around this time the focus of the Cech lab was shifting to an RNP complex, telomerase. While **Elizabeth Blackburn** and **Carol Greider** had identified the RNA component of the telomerase complex, Tom's lab found the reverse transcriptase subunit, which they named TERT. They also continued working on the RNA, solving the secondary structure of the yeast telomerase RNA in 2005.



Tom then acknowledged all those who worked with him in his lab and shared in the discoveries. He was hesitant to name names, lest he omit anyone and unintentionally offend. Thus he simply, but proudly, admitted his people have gone on to continue to do good things in laboratories in academia and biotech and in the field of publishing all over the globe, including 2 in Kyoto and one each in London, Switzerland and Sidney, Australia, adding an international flavor to his trainee portfolio.

Tom ended by acknowledging the RNA World – not the 4-billion year old one, but rather the present one; the colleagues and peers who have critiqued, criticized, facilitated and helped him develop his research program over the years through reviews and suggestions as much as through deep friendships fostered by meetings and group trips, such as an expedition to the Galapagos in 2000 (see photo below). Tom said he was glad to be back teaching and doing research and is looking forward to this second half of his career, as it were. —BP



Contribute to RNA, our Society journal!

The *RNA* journal (http://rnajournal.cshlp.org/) had another successful year. We transitioned the journal to a new web delivery platform hosted on HighWire's new H2O platform. Check out the journal web site and take advantage of the many new features that help readers navigate and discover your research. As a reminder, members received reduced publication and open access fees.

In the coming year, the journal and CSHP would like to publish more short (5-8 pages) reviews in the journal. These reviews will educate the community about a particular area of RNA and discuss common themes in the numerous RNA processes. If you are interested in writing a review, send a brief outline and cover letter to Tim Nilsen.



RNA & SOCIETY DINNER

Kimberly Dittmar and Lynne E. Maquat

The current economic crisis has unquestionably had an impact on science and the funding of scientific research in the U.S. and throughout the world. During these uncertain times, the National Institutes of Health (NIH) is revamping the process by which grants are evaluated, as well as distributing the

\$10.4 billion allotted to it by the American Recovery and Reinvestment Act (ARRA). Therefore, it was a fitting time to discuss NIH peer review and funding reforms at the first annual RNA & Society Dinner that was held at RNA2009 in Madison, WI. **Keith Yamamoto,** who has served on numerous NIH advisory panels and review boards in addition to running his own lab at the University of California-San Francisco, gave the keynote address to an audience of ~550 meeting participants.



Keith was a lively and engaging speaker, walking throughout the crowded dining room as he talked about on-going changes at the NIH and their impact on basic research. He highlighted plans for the ARRA stimulus funds, including increased support for early-stage investigators and for bold and transformative research. He definitely struck a chord in the room when he noted that the winner of this year's RNA Society Lifetime Achievement Award, **Tom Cech**, started his lab at age 32 and won the Nobel Prize at age 42. In contrast, today the median age at which a scientist gets his or her first independent position is 38 and the median age for the first R01 is 42! This example really underscored the importance of supporting early-stage scientists at the post-doctoral and assistant professor levels, which the NIH is doing with Pathway to Independence and New Innovator Awards (http://grants1.nih.gov/grants/new investigators/). Keith also described the Transformative R01 program, which will account for 1% of the R01 budget and is designed to fund high-risk-high-reward research that is envisioned to be sufficiently revolutionary to create new technologies and, hopefully, entirely new fields. Without substantial governmental support, advancing this type of research would not be possible.

Keith spent much of his presentation discussing the importance of a high-quality peer review system and new NIH policies aimed at transforming peer review in the U.S. He was a member of the committee that



performed the first evaluation of the peer review system in 62 years, which he noted was long overdue. He believes that peer review is the best way to distribute the 83% of the \$30 billion that are allocated to the NIH for extramural research funding. However, Keith noted the importance of making the peer review system more efficient and effective so as to motivate top scientists to continue producing high-impact research and to participate in the review process. He described in detail some of the new R01 review policies, including a 12-page (vs. the old 25-page) Research Plan that emphasizes impact rather than experimental details of the proposed research. These proposals will undergo a new 1-9 scoring system (vs. the old 1-5 scoring system) for each of five new criteria: impact, approach, innovation, investigator, and environment.



Additionally, only one amended application will be accepted (in contrast to the previous two). These changes will certainly affect any member of the RNA Society who submits for NIH funding.

Keith ended his presentation reflecting on the future of science in the U.S. and on some of his "fantasies" for the future of the NIH. President Obama has promised to commit 3% of the gross domestic product to research and development (compared to 2.6% in 2006), which should allow for multi-year budget increases beyond the two years of ARRA funding. Speaking about government funding of basic research, Obama stated "Rewards are often broadly shared, enjoyed by those who bore its costs but also by those who did not...That's why the private sector under-invests in basic science – and why the public sector must invest in this kind of research. Because while the risks may be large, so are the rewards for our economy and our society." Keith envisions an increased role for the NIH in strengthening training and career development for scientists, as well as in enhancing public education and outreach. These efforts are essential for the continued advancement of U.S. science.

The first RNA & Society Dinner, like the Women in Science Dinners before it, was a great success, and we look forward to future RNA & Society events that will cover a broad range of topics of interest to RNA Society members. We welcome your feedback and suggestions. The Second RNA & Society Dinner will be held at RNA2010 in Seattle, WA. We've slated an entertaining and provocative speaker whose identity will be revealed in the next RNA Society Newsletter!

IT'S NOMINATION TIME!

Interested in shaping the future of the RNA Society? Run for office. In 2010 we will elect a President and 3 new Directors. Any RNA Society member has the opportunity to nominate themselves or other members for any open position, by collecting ten signatures on a petition. Petitions must include a statement from the nominee of willingness to serve if elected. Any member of the Society (except those serving on the Nominating Committee) can be elected to fill any office or serve on the Board of Directors.

For 2010, **Eric Phizicky** will chair the committee. Eric and three other colleagues will collect names of potential candidates. Elections will start in mid April 2010. All members will be notified that voting has commenced via an Email communicated from the Society office. For more information, please contact Eric Phizicky (eric_phizicky@urmc.rochester.edu) or Evelyn Jabri (ejabri@gmail.com).



Awards to Young Scientists presented/Acknowledged at the Annual RNA 2009 Meeting

At the Awards ceremony on Saturday in Madison, several students and postdocs were acknowledged for their contributions and discoveries.

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

- The 2009 RNA Society/Scaringe Award to a Graduate Student was given to Jeremy Wilusz in the lab of David Spector at Cold Spring Harbor
- The **2009 RNA Society/Scaringe award to a Postdoctoral fellow** was awarded to **Shobha Vasudevan** in the lab of Joan Steitz at Yale

The poster awards presented at the meeting including the following individuals:

- The ACS Chemical Biology poster for 'innovative use of chemical biology applied to the study of RNA' was awarded to Ryan Marcheschi of the Butcher group for poster # 508: A high throughput screen in small molecule effectors of HIV-1 RNA structure identified a class of drugs that affect translational frameshifting
- The Nature Structure Molecular Biology prize in Molecular Biology and Biochemistry went to Gene-Errol Ringpis of the Aphasizhev group for poster #317: Modularity of trypanosolma RNA editing TUTases
- The Nature Structure Molecular Biology poster prize in Genetics went to Zoya Kai of the Pasquinelli group for poster #238: Regulation of let-7 microRNA biogenesis in C.elegans
- The Nature Structure Molecular Biology poster prize in Biophysics and Structural Biology went to Gang Chen of the Tinoco group for poster #182: Triplex structures in an RNA pseudoknot enhance mechanical stability and increase efficiency of -1 frameshifting
- The Nature Reviews Molecular Cell Biology award for "innovation and interdisciplinary research" went to Kosuke Fujishima of the Kanai group for poster #305 : Tri-split tRNA : a novel type of transfer RNA produced from three transcripts via trans-splicing

Congratulations to all!



From the CEO's Desk Evelyn Jabri

I am writing this column in Prince George, Canada where I am attending the 5th annual RiboWest meeting. I thank Steven Rader and colleagues at University of Northern British Columbia for the invite and opportunity to

talk about the RNA Society – our history, current structure and future plans.

RiboWest (http://www.biochem.ualberta.ca/RiboWest/mission.html) is a "forum" at which RNA scientists from western Canada can meet, discuss recent advances, and generally promote more interactions between our geographically dispersed institutions". The two-day meeting featured talks from undergraduates, graduate students, post docs and faculty members. A poster session, careers workshop and a hike rounded out the meeting activities. As is the norm with most RNA meetings, discussions lingered into the bar each

evening where in one instance we were treated with a spectacular view of the aurora borealis.

During the very enjoyable visit, I learned how RNA colleagues in Western Canada are working with their colleagues at Eastern Canada RiboClub (http://www.riboclub.org/cgi-bin/RiboWeb/index.pl?page=index_en) to coordinate the Canadian RNA efforts and present a unified RNA voice in Canadian science.

I mention these local RNA Club meetings for a couple of reasons. First, the Canadian efforts provide an example of how RNA Clubs, using annual local meetings and monthly web seminars, can work together to





strengthen RNA science in their country. Second, Ribowest and Eastern Canadian RiboClub serve as examples of how the RNA Society is supporting its members and helping them foster interactions outside of the larger RNA Society annual meeting. In 2009, both RiboWest and Eastern Canadian RiboClub meetings are sponsored in part by the RNA Society.

Can we help you and your colleagues develop and strengthen your local RNA gatherings? We are especially interested in facilitating small group gatherings all over the world through partial sponsorship of your activities (for more details, see page 18). **Kimberly Dittmar**, a postdoc representative interested in expanding her understanding of non-profit society operations, is helping the RNA Society coordinate its sponsorship efforts. She and I welcome your requests for support.

In other matters, the finances of the RNA Society are in good order, and they are positioned to remain so for the coming years. Jim and I are monitoring the economic situation carefully and ensuring that our reserves continue to grow despite the financial downturn. Our efforts are aided by the continued success of our journal *RNA* and annual meeting which have returned strong profits in the past few years.

On the operations front, I have implemented a process to consolidate all existing and past business documents of the RNA Society in one collection accessible to all officers. Currently, documents are stored and archived in separate collections in multiple locations. These individual collections are not always accessible to all officers and directors. The single larger collection will not replace the smaller archives but will be used to provide upto-date information to all officers and directors should an unforeseen disaster (such as major computer failure) strike one arm of our operations. If you have historical documents that you think the RNA Society should retain, please contact me.

On the strategic front, we continue to discuss long-range goals for the society. **Roy Parker**, our incoming president, has collected numerous suggestions into a 'RNA 2020' document that he will circulate for additional feedback. One of our ongoing goals is to determine how to keep all of our members across the globe connected throughout the year.

We have initiated a few web-based efforts to enhance member interactions. The LinkedIn RNA Society group continues to grow and now numbers more than 155 members, primarily scientists working in industry. The RNA Society Graduate Student member Facebook group includes 60 members. The group has posted links to **Marty Fedor's** presentation from the Scientific Communication Workshop at RNA2009 - a nice step-by-step guide for how to plan, organize, write, submit, and revise a manuscript. The Facebook page also includes links to other Facebook RNA groups including the 'Society for RNA Lovers' and 'MicroRNA Mania'. These groups often post RNA Society news as well as other content that may be of interest. Join us on the web and help the Society expands its interactions with its members and the larger group of scientists interested in RNA.

In closing, let me remind our members to renew their membership. Membership rates will remain the same as in 2009. Students and postdoc take special note – it costs \$35 for membership with online access to the journal! Members receive discounted registration at the annual meeting, reduced publication fees, and access to our database of RNA Society members. Later this year you will receive an email regarding a new enhanced member directory – consider updating your profile and renewing membership at that time.

I welcome your suggestions for how we can continue to strengthen the RNA Society and enhance the benefits to members.

Enjoy the rest of this wonderful summer, Evelyn Jabri <u>ejabri@gmail.com</u>



Chairman of the Meetings Committee David M.J. Lilley

In this job I take a long-term view of our meetings. Possible venues generally come over my horizon as



a first tentative suggestion, maybe three or four years ahead. This then gets firmed up through discussions with the Society, the annual Meetings Committee, the selection of an organizing team (itself a process that requires much thought and

consultation, and even a little arm-twisting now and again) and sometimes a site visit a couple of years before the meeting. In recent years we have increasingly had the luxury of having several competing bids for venues, allowing us to examine and compare each in detail.

So it's a great feeling when each meeting comes to fruition, and we can settle back and just enjoy a week of wonderful RNA science. A couple of months have now gone by since the highly successful meeting in Madison. The organizing team of **Andrew Feig, Benoit Chabot, Fátima Gebauer** and **Narry Kim** gave us a wonderful conference, and we thank them for their hard work and inspiration.

But after returning to Madison on a regular basis we must forget the lakefront of Lake Mendota for a while. The conference facilities are getting a major overhaul, and we cannot return there for a few years. However, we have some excellent and exciting venues for our annual meeting in the next four years.

Next year we return to Seattle, between June 22-27, 2010. The organizing team are **Tim Nilsen** (lead), **Doug Black, Elisa Izaurralde** and **Juli Feigon, with Alan Weiner** (who ran the very successful 2006 meeting) to cover local issues. If Alan could arrange for Mount Ranier to be on display for five days again through the meeting, this would be very much appreciated!

In 2011 we break exciting new ground with our first Asian meeting. This will take place in the city of Kyoto, between June 14-19, where we shall be the guests of the Japanese RNA Society. We have recently finalized the organizing team, to be lead by our former president Eric Westhof, together with Lynne Maquat (another former president), Jamie Williamson and Melissa Jurica, together with Yoshikazu (Yoshi) Nakamura and Haruhiko (Haru) Siomi from the Japanese RNA Society. We hope as many of our membership as possible will attend the meeting in Japan. Kyoto is the ancient imperial capital, steeped in history and with around 2000 temples and shrines. It will be a wonderful opportunity to combine our usual festival of science with some memorable sight-seeing!

After Japan, we return to the US in 2012, to be hosted by the University of Michigan at Ann Arbor. This will have perhaps a similar feel to Madison (but no lake, sorry), with similar advantages of central location and good communications and a university campus environment. **Dave Engelke** provided an excellent presentation at the Meetings Committee this year, and all present were won over by his presentation and excited about this venue.

Beyond this, we have taken the decision to go back to Europe in 2013. Right now we have interest from a variety of host cities including Davos in Switzerland, Vienna and Barcelona for possible venues, and a decision on this will be made next year at the Seattle meeting. In the meantime, I welcome any views on the pros and cons of each of the different locations.

And as ever I continue to look for interesting new venues for future meetings, and welcome any suggestions. Please keep those coming - I can provide a copy of our venue guide that sets out the specific requirements for our meetings.

Do contact me with any thoughts or suggestions on any aspects of our meetings!

David Lilley d.m.j.lilley@dundee.ac.uk



GradStudent and Postdoc Corner

RNA 2009 from the Post-doc Perspective

RNA 2009 was another successful meeting filled with great science and some wonderful events for the post-doctoral members of the Society. As always, the meeting was a great opportunity to exchange ideas and information about science and careers, to catch up with old friends, and to make some new ones. On Tuesday



night, we co-hosted a social along with the graduate student representatives. So many junior members of the society attended this event that we exceeded the capacity of the meeting room and had to expand next door. It was great to see such a big turnout and dynamic conversations among the attendees. In addition to the social, there were career development workshops aimed at students and post-docs, and organized by your graduate student and post-doc representatives. This year's workshops covered alternative career paths and scientific communications (described in detail on p 15). These workshops have been a valuable addition to the meeting and we plan to continue them with new topics for RNA 2010 in Seattle. In addition to the workshops, the traditional mentor-mentee lunch

was another chance to get career and life advice from more senior scientists. **Dan Golden** also organized a luncheon focused on intellectual property issues with an attorney as a guest speaker, which was a great opportunity for people interested in that career path. The week in Madison came to an end much too early and we hope to see you all again next year in Seattle.

This meeting marked the last of Dan Golden as my fellow post-doctoral representative. Dan has been an enthusiastic and effective representative of the RNA Society's post-docs and he will be greatly missed. He has been instrumental in many areas, especially in advancing career development programming at the annual meetings and social networking opportunities for the Society. Please join me in wishing Dan the best of luck as he moves on to a Project Planner position at Merial, an animal health company in Atlanta. While I am sad to see Dan leave, I am happy to introduce **Marc Schneider** as the new post-doctoral representative of the RNA Society. Marc was a Ph.D. student in the lab of **Reinhard Luhrmann** and will be moving on to a post-doc position in the lab of **Tony Kouzarides** at the Gurdon Institute of the University of Cambridge to define the role of RNA in chromatin formation in higher eukaryotes. It is very exciting to have Marc joining me in this role and it is particularly important to have representation from the European junior members of the Society. I know



Kim Dittmar <u>dittmar@mail.med.upenn.edu</u>

that Marc will make a fantastic representative with much to contribute to the Society.

Marc and I are looking forward to another great year for the RNA Society. The involvement of our fellow postdocs and graduate students is important for the continued growth of the Society so we encourage you to get involved. Please contact us with any ideas for future meetings or other RNA Society activities or if you have any other questions or comments.

It is a German tradition that lab members create a "doktorhut" for the Graduate - in Gottingen every new PhD kisses the fountain statue: here it is the "goose girl". Congratulations Dr. Schneider!

Marc Schneider SchneiderMarc@ymail.com



RNA 2009 from the Graduate Student Perspective

Once again the RNA meeting has come and gone, and we had the chance to learn a lot of exciting new science and meet more friends and colleagues! We set up a few meeting times before the conference and started to get to know people. On Monday night, about 20 graduate students and postdocs met at a brew pub in Madison, bonded over beer and pretzels, and found out what cheese curds are. (Actually, they're delicious!) Some RNA Society Facebook friends who weren't able to stay for the conference even dropped by!

The next day, as people registered for the conference, we got lunch and sat out on the terrace enjoying the calm before the meeting began. It was a great way to make some friends that we would see throughout the meeting; it's always nice to walk into a room and see a few friendly faces even if you're the only one from your lab at the conference!

We also hosted the Graduate Student & Postdoc Social on the second night of the conference. The room was packed from beginning to end as junior scientists met each other to share excitement about new data, commiserate about the tougher times we've all experienced at the bench, and make new friends and professional contacts. It was also great to see the people we met at last year's conference!

We do more than just socialize—we helped to organize the career workshops that seemed quite successful and are described in other articles. Junior scientist involvement in the RNA Society is a very important element of the conference and of the Society, so send us your ideas for what you'd like to

Claudia Recinos Rea Lardelli <u>crecinos@med.miami.edu</u> <u>realardelli@mail.utexas.edu</u> see at next year's conference! We'd love to hear your suggestions!

The RNA Society Graduate Student Members
Facebook page is a great way to stay in touch with
all the friends you made at the conference! This
gives you the opportunity to stay in contact with
fellow RNAers and network with other labs
throughout the year. There are also photos from the
conference and useful links to presentations from
the career workshops. Upload your photos and join
in on the discussion board!

Unfortunately, we can't be graduate students forever—Heather Miller, Melanie Baker, and Sarah Ledoux are all moving on to postdocs this year. However, Rea Lardelli and Claudia Recinos will continue as Graduate Student Representatives, so if you have questions, comments, or ideas for the graduate students, get involved and let us know!



Clockwise from top left: Heather Miller, Rea Lardelli, Kim Dittmar (Postdoc rep), Melanie Baker, Claudia Recinos, Sarah Ledoux



Communicating Science: How to Get Your Results Published

A valuable recent addition to the annual RNA Society Meeting has been professional development workshops for junior scientists. This year, we coordinated a workshop entitled, "Communicating Science: How to Get Your Results Published." Writing papers can be daunting, especially the first time when the submission and review process seem very mysterious. But it's one of the most important parts about our jobs as scientists since it's how we share our important discoveries with the world. That's why we invited journal editors with a range of different backgrounds and experiences to present their thoughts on how to design and submit a quality scientific manuscript.

Marty Fedor (Associate Editor for the Journal of Biological Chemistry and a member of the RNA Journal editorial board) gave an overview from planning a project to writing and submitting the paper to responding to reviewers' comments. Tim Nilsen (Editor in Chief of the RNA Journal and a member of the editorial boards of Science and Molecular and Cellular Biology) pointed out very clearly that your editors and reviewers are your colleagues, so you don't want to do anything that would "annoy" them at the risk of complicating the review process. Angela Anderson (Associate Scientific Editor at Cell) and Sabbi Lall (Associate Editor at Nature Structural & Molecular Biology), were both able to give us the perspective of what happens to papers sent to journals with full-time editors.

Everyone emphasized some common points, as well as journal-specific advice and personal preferences. One of the most important pieces of advice related to the paper writing process was to make sure you send the paper to a journal with an appropriate focus and that the manuscript adheres to the journal's guidelines. The presenters pointed out that the same approach to writing does not work for everyone; while Marty likes to write a paper by starting with designing figures and building the text to describe the data, Tim prefers to write the words and then design the figures to enhance the text. The presenters also gave some great advice about the review process, emphasizing thorough and constructive responses to the reviewers' comments. They also reminded us not to take challenging reviews personally. If reviewers, who are likely specialists in your field, have questions about your work, then a naïve reader will have even more trouble understanding your results. The aim of the review process is to strengthen the paper and it will be successful with the cooperation of writers, reviewers and editors.

We definitely walked away with tons of helpful advice and we hope that the audience did too. We're grateful to the editors who shared their time and gave meeting participants this opportunity to pick the brains of the people they may have to work with to get their work published. The workshop was aimed at junior scientists, but we were excited to see that professors and established scientists also attended! Feel free to send us feedback on what you liked and didn't like about the workshop and let us know if there's a topic you'd like to see presented at future workshops.

*Marty Fedor's presentation is available on the <u>RNA Society Graduate Student Members</u> Facebook page and will be posted on the RNA Society website.

Kim Dittmar <u>dittmar@mail.med.upenn.edu</u> Sarah Ledoux <u>s-ledoux@northwestern.edu</u>



RNA Society/Scaringe Award WANTS YOU!

What is the RNA Society/Scaringe Award?



This Award was established to recognize the achievement of younger scientists engaged in RNA research and to encourage them to pursue a career in the field of RNA. The award is open to all junior scientists (graduate students or postdoctoral fellows) from all regions of the world who have made a significant contribution to the broad area of RNA.

Am I eligible for this award?

Graduate students who have published at least one paper on an RNA topic, in at least the third year of your graduate career, and currently working in RNA research are eligible.

Postdoctoral fellows who have published at least one paper on an RNA topic, have been in their position for at least one year and working in RNA research are also eligible.

Applicants are NOT required to have published in the Society journal.

How do I apply for the award?

Complete the application (found on the RNA Society web site http://www.rnasociety.org/awards and click on attached application form), secure a short recommendation from your PI, and submit the application packet to the RNA Society/Scaringe Award Committee.

How will the winner be selected?

The Committee evaluates applicants on overall contribution in the field (not how many papers you have published but your overall potential), and the review topic proposed in the application. The latter is used to judge your ability to communicate your work and your broader perspective of RNA research.

The names of the winners will be listed in the annual meeting abstract book, the society website, and RNA.

What do I win?

Fame, a small fortune, a subscription to *RNA* and the chance to write for the journal! The winner will receive a cash prize, a one-year subscription to *RNA*, reimbursement of their travel and registration expense for the meeting, and an invitation to write for *RNA*. Graduate students will be asked to write News & Views piece highlighting a new and noteworthy paper in their field. Postdoctoral Fellows will be invited to write a review for the journal.

Who should I contact if I have questions about this award?

Look for more information on the society website in September 2009. You may also direct questions to the CEO, Evelyn Jabri or to the Editor-in-Chief of *RNA*, Tim Nilsen.

The RNA Society/Scaringe award is intended to encourage the best and brightest to pursue a career in RNA research, acknowledge their endeavors with additional visibility within the RNA Society, and highlight the RNA Journal as a premier vehicle for publishing RNA science.

















Scenes from RNA 2009





Travel Fellowships and Meeting Support

Did you know that your membership dues support student travel fellowships and help launch new RNA-related meetings?

RNA Society can provide fellowships (\$500-1000) to the organizers of a meeting to support the attendance of students or postdoctoral fellows. It's up to the organizers to decide how they will use these funds to help the junior folks (support one versus support multiple with smaller fellowships), but the RNA Society will need a statement outlining your plans for the funds at the time of the request.

The society can also help organizers launch a new meeting (one that has never been organized before), by providing an interest-free loan. The sum is negotiable and depends on what the organizers feel they can repay. In general, the society would support the launch of a new meeting for 1-2 years but the organizers will have to develop a plan to obtain other support after 2 years. If you wish to pursue this option, we will need a proposal outlining why the loan is necessary, how the money will be used, how the organizers will repay the loan to the RNA Society, and the plans for making the meeting self-supporting in the future.

The RNA Society asks that the organizers display our logo on the meeting website and in the abstract book as an indication of our support.

If you wish to request sponsorship for your meeting, please contact Kimberly Dittmar (dittmar@mail.med.upenn.edu) or Evelyn Jabri (ejabri@gmail.com).

The society was pleased to provide Fellowships and/or poster prizes at the following meetings in 2009:

The Gordon Research Conference on "RNA Editing-Roles of RNA and DNA editing and modification in cellular function" was held at Hotel Galvez, Galveston, Texas, January 11-16, 2009, organized by Juan D. Alfonzo & Marie Ohman

Funds from the RNA Society were used to provide student awards presented to Ling-Ling Chen (University of Connecticut) from Gordon Carmichael lab Michael Morabito (Vanderbilt University) from Ronald Emeson lab Jessica Spears (Ohio State University) from Juan Alfonzo lab

9th Course: Biophysics and Structure to Counter Threats and Challenges was held from June 22nd to July 2nd 2009 at the International School of Biological Magnetic Resonance in Erice, Sicily, organized by **Joseph Puglisi**.

Prominent professors representing world-renowned scientists and students from around the world participated in the course. The course provided a broad overview of NMR, x-ray crystallographic and computational methods, merged with other approaches in biophysics. Technologies related to pathogen detection and treatment using these methods were also presented. Detailed lectures were subsequently presented on key problems in biology.



The focus was on interdisciplinary approaches to treatment, detection and understanding of emerging infectious diseases.

At the end of the course, students had an appreciation of how to apply each technique to their own particular research problem and to understand that multifaceted approaches and new technologies are needed to solve the biological challenges of our time. The course succeeded in training a new generation of biologists and chemists who will probe the molecular basis for life and disease. The tenor and lengthy format was ideal for both learning and extensive interaction between faculty and students of this rich, interdisciplinary course.

Funds from the RNA Society supported one of Stanford's graduate students, **Colin Echeverría Aitken** who participated in the course. Colin is a Biophysics graduate student in **Joseph Puglisi's lab**. He delivered a lecture entitled **"Ribosome Dynamics and Translation"**, presenting his exciting work. Pictures and other details are available at http://smrl.stanford.edu/erice2009/.

Once again, we like to thank The RNA Society for supporting this very worthy meeting. Although the organization came at an awkward time due to the poor global economy, the course was very productive and highly successful. Because of the generosity of organizations like the RNA Society, we were able to organize such a successful course - we are grateful for this support and look forward to organizing our next course!

The Micro symposium on Small RNAs was held in May 18-20th 2009 at **IMBA**, **Institute of Molecular Biotechnology in Vienna Austria**. Organizers used donated funds, including those from the RNA Society for organizing the PhD-Workshop. This event consisted of three sessions, with three speakers each. This is a unique aspect of this meeting since it offers the chance to PhD students to present their results. Donated funds were



used to help defray the costs for these nine PhD students, including covering the costs of the flight tickets (from US and Europe), meals and hotels. In total, about 250-300 people attended the Microsymposium.

Colin Malone, from Greg Hannon's Lab, was awarded the best presentation.

A report of the meeting will be appearing in EMBO Reports.

This meeting was organized by **Javier Martinez and members of his laboratory**.



Upcoming Meetings of interest:

Eukaryotic mRNA Processing

August 18-22, 2009

We are pleased to host the seventh , which will begin at 7:30 pm on Tuesday, August 18 and run through lunch on Saturday, August 22, 2009. The meeting will focus on the mechanisms and regulation of mRNA splicing, polyadenylation, turnover, localization and RNA interference. It will include all aspects mRNA transport, processing and control, including microRNA function. The meeting is intended to provide a format for the exchange of ideas and information, to discuss the latest research findings and technical advances, and to facilitate interaction amongst groups active in diverse systems.

Organizers: Douglas Black, Lynne Maquat and Joan Steitz,

8th International Conference on Ribosome Synthesis August 26th-30th 2009

http://cwp.embo.org/cfs09-09/

The **8th International Conference on Ribosome Synthesis** will be held August 26th-30th in Regensburg, Germany. Ribosomes, the cellular factories for proteins, are among the most intricate molecular assemblies in the cell. Ribosome biogenesis is tightly regulated and requires the coordinated activity of many cellular processes. In eukaryotes these include transcription by all three nuclear RNA polymerases, rRNA processing, r-protein assembly and the transient interaction with many snoRNPs and non-ribosomal protein factors.

Organizers: Herbert Tschochner; Gernot Längst; Philipp Milkereit; Susan Baserga

The 7th International Retroviral Symposium September 14-16, 2009

http://www.nc2009.org/

The 7th International Retroviral Symposium will take place from September 14-16, 2009, in McNamara Alumni Center at the University of Minnesota in Minneapolis.

Nucleocapsid (NC) plays multiple roles in the viral life cycle and is therefore a prime target for anti-HIV therapy. NC is involved in the synthesis, maintenance and integration of proviral DNA, and in virus particle assembly. All these processes will be covered at the meeting. Other proteins playing a role in the viral life cycle that are either associated with NC, or resemble it in structure or function, such as the antiviral APOBEC3G protein, will also be discussed at the conference. In addition, we will be expanding the emphasis to discuss additional viruses with proteins similar to NC, including the hepatitis C virus.

Registration will be open until August 14, 2009. Abstract submission is closed.

Organized by : Ben Berkhout, Jean-Luc Darlix, Robert J. Gorelick, Louis M. Mansky, Yves Mély, Karin Musier-Forsyth

Rustbelt RNA Meeting October 16 and 17, 2009

http://www.rustbeltrna.org/2009/

The 12th annual **Rustbelt RNA Meeting** will be held on **October 16 and 17, 2009** at the Deer Creek State Park and Resort, Mt. Sterling, Ohio (30 minutes south of Columbus). This regional conference attracts over 200 participants from Delaware, Indiana, Kentucky, Michigan, Ohio, Pennsylvania and West Virginia. As a regional meeting, the presentations



cover a broad range of topics, including translation, splicing, mRNA decay, RNA in Human Disease, single-molecule RNA science, etc.

The meeting has a long tradition of focusing on students and postdocs, thus numerous opportunities will be provided for them to present their work, both orally and as posters. For more information, please visit: http://www.rustbeltrna.org/2009/

For last year's summary see: http://www.landesbioscience.com/journals/rnabiology/article/7459

Organized by David Rueda and Jeff Coller

Symposium on RNA Biology October 16-17, 2009

http://www.med.unc.edu/pmbb/symposium09.html

The RNA Society of North Carolina is hosting its biennial Symposium on RNA Biology from October 16-17, 2009 at the North Carolina Biotechnology Center in Research Triangle Park, NC. The Symposium will feature an outstanding group of invited speakers including Judith Kimble, Greg Hannon, Tina Henkin, Jeffrey Kieft, Karin Musier-Forsyth, Nahum Sonenberg, Sarah Woodson, Ada Yonath, and Phillip Zamore. Other speakers will be selected from the submitted abstracts with an emphasis on young investigators. Thanks to the RNA Society and other sponsors, travel awards will be available for students and postdocs who attend the meeting. The abstract deadline is August 30, 2009 (http://www.med.unc.edu/pmbb/symposium09.html).

Meeting Chairs: Traci Hall and Rebecca Alexander

RNA-protein interactions in development and cancer October 1st-3rd, Baeza, Spain

http://www.unia.es/content/view/875/586

The workshop on **RNA-protein interactions in development and cancer** will be held October 1st-3rd, in Baeza, Spain. The objective of this workshop is to discuss the roles of RNA-binding proteins and non-coding RNAs in shaping developmental processes and contributing to tumorigenesis. These regulators participate in diverse posttranscriptional events, including alternative splicing, RNA trafficking and translational control. Crosstalk between the actions of RNA-binding proteins and non-coding RNAs in regulating these processes will be explored, and pertinent new approaches in bioinformatic and high-throughput analyses will be presented.

Organizers: Luiz O Penalva; Jernej Ule; Fatima Gebauer

Gordon Research Conference on The Biology of Post-Transcriptional Gene Regulation July 18-23, 2010

http://www.grc.org/programs.aspx?year=2010&program=posttrans

The 2010 Gordon Research Conference on The Biology of Post-Transcriptional Gene Regulation will be held at Salve Regina University in Newport, RI from July 18-23, 2010. LThis meeting, which has been held every-other year since 2004, features fabulous science and a free-flow of ideas among participants, which are limited to 150. As usual, short talks will be selected from submitted abstracts for platform presentation, and post-docs and graduate students who do not get a short talk but present a poster in one of the several interactive poster sessions are eligible for one of the four poster prizes sponsored by The RNA Society.

Organizers: Lynne E. Maquat as Chair and Manuel Ares as Vice-Chair.



Employment

The RNA Society is pleased to make the Employment and Careers web pages available to the RNA community. Advertisements for employment opportunities are free to members of the RNA Society. All employment opportunities remain on this page for a three-month period. In addition, positions listed on this page are also published in the RNA Society Newsletter (distributed to more than 1000 members and subscribers) as a free service and on a one-time basis.

If you would like to have your employment opportunity listed on the web page – and to appear once in the Newsletter – please download the E-Jobs form, and return the completed form via email to rna@faseb.org.

Faculty positions

Position available in Dept. of Genetics and Developmental Biology of the University of Connecticut Health Center , Farmington, USA

Position posted, June 08, 2009

The University of Connecticut Health Center (UCHC) Translational Genomics Core (TGC) is an active provider of microarray services to University and external researchers: processing over 1,000 samples per year to perform gene-expression, genotyping, and other genomic analyses using the Illumina, Affymetrix, Agilent, and Nimblegen platforms. In addition, the TGC has an Illumina Genome Analyzer and provides next-generation sequencing technology to our users. We seek an exceptional candidate to participate in and direct the daily activities of this Core. Regular duties include providing assistance with the planning of experiments, participating in core-laboratory strategic planning, educational outreach, overseeing laboratory technicians, microarray and sequencing sample processing, and quality control. Qualified candidates will have a Ph.D. in nucleic acid chemistry, genetics/genomics, bioinformatics or a related field and/or at least two years of microarray sample-processing experience. Special attention will be given to candidates with management experience and/or a record of achievement in a service-oriented organization. The successful candidate will be appointed at an academic rank commensurate with experience. Interested candidates should forward their resumes and three letters of reference to:

Translational Genomics Core Search Department of Genetics and Developmental Biology University of Connecticut Health Center 263 Farington Avenue Farmington, CT 06030-3301

Contact:

Dr Brenton R. Graveley Tel: 860-679-2090

Email: graveley@neuron.uchc.edu

Position available in The Center for RNA Biology : From Genome to Medicine at the University of Rochester Medical Center, Rochester NY USA

Position posted, July 28, 2009

The Center for RNA Biology: From Genome to Medicine, directed by Lynne E. Maquat, is recruiting several new faculty members over the next several years. Emphasis is being placed on studies of miRNA function and/or the use miRNAs as therapeutic tools or targets in the fields of stem-cell biology, musculoskeletal biology, and inherited or acquired human diseases in general, including cancer. Appropriate individuals holding a Ph.D. and/or M.D. degree and at least two years of post-doctoral training are encouraged to apply at the ASSISTANT, ASSOCIATE or FULL PROFESSOR level. Successful applicants are expected to develop independent, externally funded research programs and to contribute toward graduate- and medical-school teaching. The University of Rochester Medical Center and the adjacent undergraduate College offer an outstanding research environment with established strengths in RNA Biology and excellent opportunities to collaborate with basic scientists and clinicians.

Applicants should send a complete C.V., descriptions of research accomplishments and future research plans, and letters from three references to Sharon_Kubiak@urmc.rochester.edu.

Contact : Sharon Kubiak Tel : 585-275-8947



Postdoctoral positions

Position available in Centre for Infection Immunity & Evolution, Division of Pathway Medicine & Division of Pathway Medicine of the University of Edinburgh , Edinburgh , United Kingdom

Position posted, July 06, 2009

A postdoctoral research associate position is available in the group of Dr Amy Buck at the University of Edinburgh, to study the functions of viral-encoded microRNAs in murine cytomegalovirus. microRNAs are small (22 nt) non-coding RNAs that have the capacity to regulate, or turn down/off, numerous genes specifically and simultaneously. These small RNAs play important and unique roles in the innate immune response and in viral infection, in a way that is distinct, and likely complementary to, transcription factors. Viruses also encode these small RNAs, which could provide an efficient mechanism for controlling the host and also for enabling persistence. We have previously identified and characterized the ~20 microRNAs encoded by murine cytomegalovirus.

Given the complexity of miRNA function and mechanism, systems based approaches will ultimately be required to understand the global effect of miRNAs on the physiology of an organism. However, this class of genes was only discovered in the last decade and there are still fundamental aspects relating to miRNA expression, function and regulation that require a focused approach. This project examines miRNA function in the context of an animal virus infecting its natural host. In the first instance, we will examine one specific cluster of miRNAs, which appear to be regulated in a distinct fashion and to potentially target key host genes involved in the immune response. The project is centered on three aims: To identify and validate host genes targets of MCMV miRNAs, to determine the in vivo function of MCMV miRNAs using engineered viruses and antisense technology, to develop an in vitro assay for viral miRNA processing.

Applicants should have a degree in biochemistry, molecular biology, virology or immunology. Applicants must have the ability to communicate effectively both orally and in writing for presenting at conferences and publishing research in high impact journals.

Contact:
Dr Amy Buck

Tel: 44 131 242 6280 Email: a.buck@ed.ac.uk

Position available in Dept of Biochemistry of the Purdue University, West Lafayette, USA

Position posted, June 08, 2009

A postdoctoral position (3-5 years) is currently available after August 3, 2009 to study the role of DEAD-box proteins in nuclear mRNA export. Gene expression in eukaryotes requires the active transport of mRNAs transcribed in the nucleus to the site of translation in the cytoplasm. Although the factors involved in this process are known, the precise mechanism for mRNA export has not been defined. Recently, DEAD-box proteins have been shown to promote export through alteration of the mRNA:protein (mRNP) complex composition (Tran et al. Mol. Cell 2007), suggesting that this remodeling drives the export process.

Our goal is to understand how DExD-box proteins, and mRNP remodeling, promote movement of a message from the nucleus to the cytoplasm. Our research combines genetics, biochemistry and cell biology using the budding yeast Saccharomyces cerevisiae as a model system.

Interested individuals should e-mail a cover letter describing your current research and future research interests along with an attached CV to the address listed below. Previous experience in protein purification, fluorescent microscopy, RNA: protein biochemistry and/or yeast genetics is preferred.

Contact:

Dr Elizabeth Tran Tel: 615-498-9065

Email: elizabeth-j-tran@purdue.edu



Position available in Dept of Chemistry of the University of Michigan, Ann Arbor, USA

Position posted, June 08, 2009

Immediately available for at least a year is a postdoctoral research position in single molecule fluorescence microscopy and NMR spectroscopy of RNA in the group of Professor Nils G. Walter at the University of Michigan, Ann Arbor, USA. The project involves highly interdisciplinary, National Institutes of Health funded work targeted at real-time fluorescence imaging and advanced NMR spectroscopy of the hepatitis delta virus, or HDV ribozyme. Highly motivated and enthusiastic candidates are sought with experience in RNA biochemistry, fluorescence and/or other spectroscopies, and the enthusiasm to learn state-of-the-art biophysical techniques. Those with the appropriate background should review the group's web page at: http://www.umich.edu/~rnapeopl and send their Curriculum Vitae and the names and addresses of three references to Dr. Nils G. Walter, Associate Professor of Chemistry, via email: nwalter@umich.edu. Please note that the University of Michigan is a top research university situated in one of the most livable cities in the US.

Contact:

<u>Dr Nils G. Walter</u> Tel: (734) 615-2060 Fax: (734) 647-4865 Email: nwalter@umich.edu

Position available in Center for Childhood Cancer of the The Research Institute at Nationwide Children's Hospital and The Ohio State University , Columbus, USA

Position posted May 26, 2009

A postdoctoral position is available immediately for a scientist with experience in molecular and/or cancer biology. The Chandler lab is investigating the link between alternative splicing, the p53 pathway, and pediatric soft tissue sarcomas of the muscle called rhabdomyosarcomas. The appointee will investigate molecular mechanisms involved in the induction of alternative splicing of the p53 pathway. This will include investigating the links between DNA damage and RNA processing as well as p53 activity. A major focus of the laboratory is on p53 modulators MDM2 and MDMX. Cell culture, in vitro splicing and mouse models serve as systems in which to study the mechanism for alternative splicing as well as the biological endpoints of the pathways. The laboratory's approaches include integration of cell biology, molecular biology, genetics, and biochemistry.

Expertise in molecular biology, genetics, and/or biochemistry is preferred. Experience in RNA processing is desirable. The successful candidate will confer regularly with the principal investigator but must incorporate self-directed research, excellent technical, presentation, and communication skills as essential parts of the job. Must have Ph.D. degree in relevant field of science from an accredited college. Coursework in biochemistry, anatomy, physiology, statistics, relevant research methods and radiation desirable. Animal experience (mouse/rat) a plus.

Interested applicants should send a cover letter summarizing research interests and career goals, curriculum vitae, brief description of research experience, and contact information for three references to Dawn Chandler by e-mail to dawn.chandler@nationwidechildrens.org.

For more information, please visit: http://chandlerlab.nchresearch.org

Contact:

Dr Dawn S. Chandler Tel: 614-722-5598 Fax: 614-722-5895

Email: dawn.chandler@nationwidechildrens.org

Position available in Dept of Cell Biology of the Cleveland Clinic, Cleveland, USA

Position posted, May 26, 2009

We would like to recruit a Post-Doctoral Fellow or Research Associate to join our research program on RNA elements and RNA-protein interactions (and uninteractions) in translational control of inflammatory gene expression (see Jia, J. et al., Mol. Cell 29: 679-690, 2008; Ray, P.S. et al., Nature 457: 915-919, 2009). Studies range from the molecular level, through mammalian cells, to mice and humans. Qualifications include a Ph.D. or M.D., and demonstrated experience and creativity in studies of RNA biology/biochemistry as evidenced by excellent publications and strong recommendation letters. The



position is open immediately. The Lerner Research Institute of the Cleveland Clinic offers a stimulating and collaborative scientific environment with competitive benefits.

Contact:

Dr Paul L. Fox Tel: 216-444-8053 Email: foxp@ccf.org

Position available in Dept. of Research of the New England Biolabs Inc., Ipswich, USA

Position posted May 04, 2009

The RNA Biology Division invites applications for the position of Postdoctoral Fellow to be filled immediately, and for a period of two years. Projects will be a part of a discovery-based basic research program into gene regulation mediated by small RNA, RNA interference, and related pathways in mammals (see Robb G. B. and Rana T. M. (2007) Mol. Cell 25;26(4):523-37, and Robb G. B. et al. (2005) Nat Struct Mol Biol. 2005 Feb;12(2):133-7.). Research will be undertaken in a highly collaborative and academic environment where publication of results is expected.

Primary responsibilities of the candidate will be:

- * to carry out original scientific research
- * to be a creative, independent and productive scientist with a strong background in cell and molecular biology
- * to interact and collaborate with the other members of the RNA biology and other research divisions to further program and division goals.

This position requires technical expertise in:

- * RNA manipulation and analysis
- * Mammalian cell culture
- * Standard molecular biology techniques

A recent Ph.D. and a demonstrated record of research accomplishments are also required, and will include publication of original scientific work in high-quality journals, and scientific communication in both formal and informal settings. This position offers exciting opportunities for broad research training, academic collaboration, publications in peer-reviewed journals and participation in national and international conferences.

Please forward your C.V. and statement of interest to: resumes@neb.com Attn: Job Code 1042BR New England Biolabs, Inc. is an equal opportunity employer. M/F/D/V

Contact:

Dr Brett G Robb
Tel: 1-800-632-5227
Email: robb@neb.com

Government & corporate positions

Position available in Dept of Biochemistry & Molecular Biology of the Uniformed Services University of the Health Sciences (USUHS), Bethesda, USA

Position posted, July 15, 2009

A research technician/ lab manager position is available immediately in the laboratory of Dr. Tharun Sundaresan [Assistant Professor, Department of Biochemistry and Molecular Biology, Uniformed Services University of the Health Sciences (USUHS), Bethesda, MD, USA (http://bio.usuhs.mil/tsundaresan.html; tsundaresan@usuhs.mil). The lab studies the mechanism of eukaryotic mRNA decay using the budding yeast Saccharomyces cerevisiae as the model system. Duties include maintenance of lab stocks of plasmids, yeast and bacteria, yeast strain constructions, cloning work, preparation of buffers, media etc and carrying out routine molecular biology experiments. Eligible candidates should have a BS/MS degree in Molecular Biology or related discipline. Experience in working with yeast (S. cerevisiae) will be an advantage. Salary will depend on experience.

Contact:

<u>Dr Tharun Sundaresan</u> Tel: 301-295-9423 Fax: 301-295-3512

Email: tsundaresan@usuhs.mil



eJobs with the RNA Society



Date

The RNA Society is pleased to provide this job posting webpage to the RNA community. Postings are free to members of the RNA Society. All advertisements are posted within two weeks of receipt and remain on this page for a three-month period. In addition, positions listed on this page are also published in our society newsletter as a free service and on a one-time basis.

Please complete this form using Microsoft Word by typing your text into the gray boxes, which will
expand as you write.
Name the completed form as I astName, alobe doc (for example, Jahri, alobe doc)

➤ Name the completed form as LastName_eJobs.doc (for example, Jabri_eJobs.doc)

Return	the	saved	file	via	email	to	rna@faseb.org	f.

Type of position (please click on one gray box to select category of job) Postdoctoral Fellow Positions Government & Industry Positions Faculty Positions Other Positions (please specify)
Description of position (please include area of research, skills required, start date and duration of position)
Contact information (required)
Name (Must be a member to post on this site)
Organization
Dept. Address
City State/ Prv.
ZIP/Postal Code Country
Tel.
Fax (optional)
E-mail
URL (optional)
Signature (electronic signature of available)

The RNA Society has the right to reject job advertisements that they deem are inappropriate for posting on this site.

