RNA Society Newsletter

February 2011

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From the Desk of the President, Manny Ares

Hello RNA world! Welcome to the second decade of the third



millennium (Already?!). It is my honor to preside over the Society in 2011, a year that promises many new and exciting developments. In my experience, change is the only constant in our field. It is fun to watch new ideas and methods arise and wedge themselves into our

larger consciousness, as less inviting notions drop to the cutting room floor.

My apparent status (only now) as one of the more crusty members of the Society allows me to look back and ask "remember when we used to think *that* was true?" And also to remark apropos of nothing, "we used to sequence RNA using thin layer chromatography and paper electrophoresis" (well, I never did--I'm not that old, but I know people who did...). (Continued on p2)

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As entertaining as these recollections might be, I can't let them distract me from hustling to understand and apply the new methods and exciting revelations so many of my colleagues are making on a regular basis. As I look back from then to now and forward from now to the future, I am truly amazed at all we have learned and all there is to learn. We are extremely fortunate to be working in such an active

The RNA Society is a social beast as well as to this remarkable a scientific one

and collegial field that is so central age of biology!

The RNA Society plays an essential lubricating role in this engine of discovery, in several ways, some more obvious than others. A major effort of the Society concerns RNA, the highly regarded scientific journal that covers the breadth and depth of the RNA field. By any measure this journal continues to be a great success, and the Society has just renewed its contract with our partners Cold Spring Harbor Laboratory Press. Nearly all of the credit for the birth and early childhood of this journal must go to Tim Nilsen, who has navigated well the many currents and storms that come with being a founding Editor in Chief. As the journal enters its teen years, the Society will be encouraging more people who share Tim's passion and commitment to the journal's goals of breadth, scientific quality, and fair and rapid review to step up and help him continue to lead this essential and growing enterprise.

Another lubricating role is of course the RNA Society Meeting. This is a special year, as the RNA world turns to Asia. In collaboration with the RNA Society of Japan, we will meet in Kyoto (see p.3-4). The Meeting is one of the very best ways to stay up on all things RNA, and the Kyoto meeting will be no exception. Melissa Jurica, Lynne Maguat, Yoshi Nakamura, Haru Siomi, Eric Westhof, and Jamie Williamson have been organizing and have just opened registration. I look forward to seeing friends and colleagues (usually these are the same) and catching up on the papers I have missed, as well as hearing about the ones that might soon be coming out. As it also happens, my grant administrator's brother-in-law owns a tiny Sake Bar in Kyoto called Yoramu, and I have promised to drop in and say

hello. I will also probably be saying "Kampai!", perhaps multiple times.

I mention this connection because the Meeting is much more than sitting in a dark auditorium, inefficiently absorbing new information at a frightening pace. It is our chance to be in a place together to reconnect and form new personal bonds and relationships that make up the fabric of the Society. As scientists we must constantly face the cold hard facts, but this does not mean that we should ignore the power of warm human connections to accelerate our collective discoveries, and to give them personal as well as scientific meaning. The RNA Society is a social beast as well as a scientific one.

Perhaps a less visible but no less important role of the Society is to promote the success of our junior colleagues. If each of us recognizes our individual limitations and yet remains committed to discovery for the ages, we simply must support our following generations now. The youth-oriented nature of the Society and the culture of mentorship the Society cultivates are already showing the returns of an excellent investment. I can see that the tendencies of many members to engage their junior colleagues have their origins in the encouragement they received as junior members of the RNA field, even before the Society was founded. This is a Society that teaches its children well. Supporting the vouthful energy and drive of our members (see p 9-10) is essential to the future strength of our endeavors, and remains one of the founding purposes of the Society.

Finally, almost invisibly, the Society forms a mental substrate just below our consciousness. We humans are still tribal in nature: 5000 years of posttribal

The RNA Society plays an society cannot essential lubricating role hold in this engine of discovery back 5 million

years of living in small bands. But nowadays none of us belongs to a single tribe. We come from different cities, different countries, different kinds of institutions, with different histories, and have different roles in our other tribes. The RNA Society



taps in to our tribal nature by creating a common identity that allows us to make connections that otherwise might be missed. Belonging to the RNA Society puts us in position to participate in all the very visible activities, as well as reminding us that it's a wide, wide RNA world out there, and if you are wrestling with a ribo-mystery, there's a good chance you will have someone with whom to share it.

OK, that's enough "vision talk" from your new President. Once you're finished reading the Newsletter, back to work! All of you!

16th Annual Meeting of the RNA Society: June 2011, Kyoto, Japan by Eric Westhof and Yoshi Nakamura

The 16th Annual Meeting of the RNA Society, which will be organized jointly with the 13th Annual Meeting of the RNA Society of Japan, will take place June 14th-18th, 2011 in Kyoto, Japan. The Kyoto International Conference Center–a modern and beautifully set hotel within a wooded area above Kyoto city–will host the meeting. The Kyoto Protocol was signed in the main amphitheater of this conference center. The site is easy to get to on a direct subway line from downtown Kyoto. Kyoto–a dynamic and historic city–is world-renowned for its



hospitality and its bustling streets next to peaceful temples. Kyoto is an easy city to navigate with lots of sightseeing

options (110 museums and galleries, 2000 temples and shrines), and it is a safe city with an abundance of Japanese and international restaurants and diverse accommodation possibilities. Kyoto is easily reached by plane via Osaka or Tokyo followed by fast trains.

This year, the kickoff on Tuesday night will feature three plenary speakers: **Jennifer Doudna** (University of California, Berkeley, CA), **Muthiah Manoharan** (Alnylam Pharmaceuticals, Cambridge, MA), and **Mikiko Siomi** (Keio University School of Medicine, Tokyo). Over the following days there will be 12 sessions and 4 workshops. In each session, there will be a plenary lecturer and a session chair.

The goal of the plenary lectures is to provide sufficient background so that participants can understand the details and importance of one or more new and interesting scientific stories that are relevant to the session. The idea is to give the audience a broader understanding of the many roles of RNA by sharing with them some exciting themes of RNA research. These themes will serve the listeners well as they move through the rest of the meeting.

The role of the session chairs is to present their own results in a short talk, introduce and control the time allotted to each speaker, and monitor the question-and-answer periods for each speaker. Each session will accommodate 8 speakers who will be chosen, as usual, from submitted abstracts. The two afternoon sessions will be concurrent. Two

concurrent workshops also will be organized for Wednesday and Friday afternoons following the plenary sessions. Depending



on workshop organization, at least 6 selected talks could be accommodated.



The society program includes special events such as the Junior Scientist Social (see p 9), the Mentor-Mentee Lunch, and the Career and Development Lunch. This year's RNA & Society Dinner will be replaced by an RNA Journal Reception, at which, the editor-in-chief of the RNA Journal, Tim Nilsen, and the staff from Cold Spring Harbor Laboratory Press will be present to answer your publishing questions.

The Society and the organizers are committed to keeping the cost of the conference within the budgets of all attendees. Over \$350,000 in donations, sponsorships and Society subsidies has already been secured in to ensure that registration costs remain affordable. In addition, over \$16,000 in travel grants is available to students and post docs who need additional financial assistance (see the registration web site for application instructions).

On behalf of the other organizers, Melissa Jurica, Lynne Maquat, Haru Siomi, and Jamie Williamson, we hope you will join us in Kyoto this summer for an exceptional meeting of two RNA Societies in a new and exciting venue.







The RNA 2011 website is now open for registration and abstract submission.

The deadline for early registration and submission of abstracts is Monday, March 7, 2011 by 11:59 p.m. Eastern Standard Time.

More information can be obtained at the meeting web site: <u>http://www2.convention.co.jp/RNA2011/</u>

Titles of the sessions :

Catalytic RNAs and Riboswitches		
Ribosomes and Translation		
Structures of RNA Protein Complexes		
Functions of RNA Protein Complexes 1		
Functions of RNA Protein Complexes 2		
Host-Pathogen Interactions		

RNA Structure & Folding MicroRNAs Pre-mRNA Splicing RNA in Disease and Therapeutics mRNA Turnover Noncoding RNAs

Titles of the workshops :

Bioinformatic Tools	Novel RNA Technologies
High-Throughput Techniques	RNA Synthetic Biology

We look forward to seeing you in Kyoto!

The organizing committee:

Melissa Jurica (University of California, Santa Cruz)
Lynne Maquat (University of Rochester)
Yoshi Nakamura, Co-Chair (University of Tokyo)
Haru Siomi (Keio University, Tokyo)
Eric Westhof, Co-Chair (Institut de Biologie Moléculaire et Cellulaire, Strasbourg)
Jamie Williamson (The Scripps Research Institute, La Jolla)



RNA 2011 Sixteenth Annual Meeting of the RNA Society In conjunction with THIRTEENTH ANNUAL MEETING OF THE RNA SOCIETY OF JAPAN





From the Desk of our new CEO, James McSwiggen



Welcome to a new year and a new decade for the RNA Society. This year is also the beginning of my tenure as the CEO of the Society, and I am excited about the opportunity to meet and to work with all of you in my new capacity.

As most of you probably know, the Society has both a President and a CEO, but some might not know how those roles differ.

The President is essentially the policy head for the Society. This year Manny will be the one who chairs the Council, the policy making body of the Society, and also presides over the annual meeting, appoints members to our various committees, and

signs contracts—all with the oversight and consent of the Council. Society members elect a new President each year in the spring, who then begins serving immediately as President-Elect, takes over as President at the beginning of the new year, and finally serves as Past-President for a year following that year.

The CEO is basically the business head for the Society. So I'll be responsible for the conduct of the Society's daily affairs. In collaboration with Jim Bruzik, our CFO, we will be preparing the annual budget, making disbursements, developing new business proposals, negotiating with contractors, and managing the Society's publications activities—again, all with the oversight and consent of the Council. Thus my responsibilities are to keep the Society running on a day-to-day basis.

As CEO, I hope to develop new programs that advance the Society's goals of promoting research and education in RNA science. The Society currently operates one journal, hosts one annual conference, and supports other smaller conferences and clubs through small grants. What more should be we doing? I am currently working on some specific ideas, but I would welcome suggestions from you as well. Remember that any increase in expenditures would also necessitate an increase in income, so suggestions for new sources of income (or more income from the same sources) are also welcome and needed. Currently, the majority of the Society's income is derived from journal revenues, with a smaller revenue stream coming from our annual conference (in most years).

The financial status of the Society continues to look very good, but there still is room for improvement. Our cash reserves have continued to grow over the past 5 years, and they currently stand at about \$700,000. This amount is roughly half the budgeted cost for the upcoming Kyoto meeting, however. One of my top priorities as CEO will be to find ways to increase our financial cushion while also finding funds to implement new initiatives. You can help us in this goal by doing the following:

1. Encourage your colleagues to join the RNA Society. The number of student and postdoc members continues to grow in our society, but the number of Full members has not substantially increased. Additionally, the number of Society members is only a small fraction of all the authors who have published RNA-related papers in the last five years. A growing membership is better able to support new initiatives both financially and in terms of volunteers. In recognition of the importance of this activity, the Society has recently appointed Kim Dittmar to the position of Membership Committee Chair (see p 7). Kim will be looking both at how we can encourage new members to join, and how we can best support existing members in their research careers. You can help her and all of us by encouraging your colleagues to join us.



- 2. Join us at RNA 2011 in Kyoto. This year's meeting in Kyoto should be both fun and informative, but we need your participation. The organizers have already secured over \$350,000 in donations, sponsorships and Society subsidies in order to ensure that the costs of registration remain affordable. This is probably the best deal you'll have all year for attending an RNA-related conference, and your attendance will help to make it the best conference ever for the RNA Society as well. There are even >\$16,000 in travel grants available for students and post docs who need some financial assistance. So don't delay; sign up today (see p 3-5)
- **3. Send us your ideas.** As I already said, I'm looking for ideas on new initiatives for the Society and also new sources of funding. I plan to have my ideas ready to present to the Council at this year's meeting in Kyoto, and I hope I can include some of your ideas as well. Feel free to contact me directly at mcswigi@comcast.net. I look forward to a continuing dialog on how we can make the Society even more responsive to your needs, while continuing to stay on a sound financial footing.

Finally, I want to thank and congratulate our recently retired CEO, Evelyn Jabri, for leaving the Society in such good financial and organizational shape, and for making the CEO transition so informative and painless. I only hope that I can do as well for the Society as she did.

Chair of the Membership Committee Kimberly Dittmar

After several years of serving on the RNA Society Junior Scientist committee as a postdoctoral representative, I



am excited to expand my role in the Society's operations as chair of the Membership Committee. This new committee was formed by the Board of Directors to handle activities related to membership. I will be working with our new CEO to find ways to expand our membership and to develop new member services and enhance existing services. I will also be managing the Society's LinkedIn website and I hope to develop additional social networking tools for our members. I want to take this opportunity to encourage members to get involved in the Society by providing any feedback, questions, or suggestions regarding membership and what we can do to improve their membership experience. I also want to thank all of our members for their continued support and to remind them to please renew their memberships for 2011. Membership information can be

found on membership section of the Society's website, <u>http://www.rnasociety.org/membership</u>. If you want to contact me for info or to share ideas, please Email! dittmar@mail.med.upenn.edu



Chairman of the Meetings Committee David M.J. Lilley

I am very excited about the upcoming RNA Society conference in Kyoto this summer (see p 3-4). This will of



course be our first Asian meeting. When I took on the job of Chair of the Meetings Committee one of my goals was to take the annual meeting to Asia, and I am very much looking forward to seeing this come to fruition. No one can fail to be impressed with the rise in importance of this part of the world in all aspects, including of course science. As a further indication of this, Cold Spring Harbor Laboratories have a brand new conference center in Suzhou, China, and a number of us attended the first Cold Spring Harbor Asia RNA meeting last November.

Eric Westhof, Yoshi Nakamura and their co-organizers have done a superb job in organizing this meeting both scientifically and in all other respects. The conference center is fabulous, located on the end of a subway line that goes

directly into the center of Kyoto, the ancient capital of Japan. I realize that this meeting could work out to be a little more expensive for most of us compared to our usual meetings. But it should not be too much more expensive in comparison with North Americans going to Europe or vice versa. And the meeting in Berlin was one of the most successful ever, and one of the best attended. I very much hope also that our Asian colleagues will strongly support the meeting; this will strengthen the probability that we shall return to eastern Asia in the future. I am sure this is going to be an unqualified success, and I hope to see as many of you as possible in Kyoto.

We also have a new venue next year, in Ann Arbor, Michigan. I imagine that the feeling will be quite like the Madison meetings (without the lake), and it should have the same advantages of central location, ease of access and a pleasant campus environment.

As I announced in my piece in the last Newsletter, we will go to Davos, Switzerland in 2013. I shall say more about this is forthcoming issues. Beyond this we are not yet committed, though some interesting possibilities are emerging. As ever I welcome suggestions for new venues - does your local RNA community want to bid for this distinction? Obviously the requirements on lecture theatres and accommodation are quite demanding, but I have a document that outlines all this so please email me if you are interested.

Finally can I add my personal welcome to Jim McSwiggen as our new CEO (p 6). I was delighted to hear of his appointment, and I very much look forward to working closely with him on RNA Society business in the future.

See you in Kyoto!

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



GradStudent / Postdoc corner : RNA Junior Scientists By Kim Dittmar and Marc Schneider

Happy New Year from your graduate student and post-doc representatives! We look forward to another great year for the RNA Society, particularly our 2011 meeting in Kyoto, Japan (see p 3-4). We are already working on developing many exciting scientific and social events for junior scientists in Kyoto. In lieu of the Career Workshops that we have been organizing for the past several years, our committee will be hosting a Career Development Lunch on Friday afternoon. The program for this event is still being planned, but our theme will be "International Careers", a topic that should be of interest to our diverse international audience. Scientists who have trained and/or worked in different parts of the world will share their perspectives on this experience in terms of science as well as other aspects of life as well as to offer advice to junior scientists who are deciding where to pursue their own studies and careers. We will also be hosting the annual Junior Scientist Social, an opportunity for networking with other students and post-docs at the meeting.

Last year, our pre-conference tour of Seattle was a big success (with a huge turnout!), so we plan to continue this tradition in Kyoto. We will arrive in Kyoto early to do some sightseeing and socializing with other RNA Society members on Monday June 13 and Tuesday June 14. Please contact us if you are



interested in participating, or in helping to plan the tour. This is a great way to meet people before the serious science begins! For updates on these events, please follow us on Facebook (RNA Society Junior Scientist Members group) and LinkedIn (The RNA Society group).

As your representatives, we invite you all to participate in the Society. We have included our emails below and welcome all comments, questions and suggestions about what we can do for our members. Please join the Facebook and Linkedin groups to stay in touch with other RNA Society members all year long. We look forward to seeing you all in Kyoto!

Eric Anderson (Graduate student representative)eric.anderson@umassmed.eduKimberly Dittmar (Postdoctoral representative)dittmar@mail.med.upenn.eduPeter Watson (Graduate student representative)watsonp@scripps.eduMarc Schneider (Postdoctoral representative)ms939@cam.ac.uk



Introducing your new graduate student representatives : Peter Watson and Eric Anderson.



Hello RNA World! I am Peter Watson, a fourth year graduate student in Marty Fedor's lab at the Scripps Research Institute. I am investigating riboswitch activity in vivo, in order to gain insight into riboswitch function amidst the complex milieu of intracellular metabolites. My work in the Fedor lab recently revealed that the glmS riboswitch integrates information from inhibitory, as well as activating metabolite ligands. My current focus is on extending these findings to gain a quantitative understanding of signal integration by riboswitches in vivo, driven by my more general interest in RNA-mediated gene regulation. I hope to communicate the needs of burgeoning scientists, with the goal of facilitating the RNA Society's continued growth as a forum for the exchange of scientific ideas. I am especially excited about the opportunity to strengthen this exchange across international lines in the coming year.

Hi fellow RNA society members! I am Eric Anderson, a fourth year graduate student in Melissa Moore's lab at the UMass Medical School. I am interested in combining my love of chemical biology with the study of pre-mRNA splicing and spliceosome assembly. In order to gain direct insight into the dynamics of spliceosome-mediated splicing, our group has developed single-molecule fluorescence techniques utilizing TIRF microscopy of whole-cell yeast extracts. I am using these tools to observe the comings and goings of the trans-acting DEAH-box ATPase Prp22p, which maintains the fidelity of the second step of splicing. As a student representative, I am very excited about attending my first overseas RNA society meeting in Kyoto. I look forward to learning more about career development pathways, particularly in terms of the different opportunities available internationally.





RNA 2011 SIXTEENTH ANNUAL MEETING OF THE RNA SOCIETY In conjunction with THIRTEENTH ANNUAL MEETING OF THE RNA SOCIETY OF JAPAN





Recent RNA Society-supported meetings

RiboWest 2010 July 11-14, 2010

"I had a phenomenal experience networking with other students and getting a glimpse of the many exciting directions that RNA research is taking off into!" This statement of a RiboWest 2010 participant clearly describes this year's event. 80 researchers from western Canada (and the US), representing more than 20 research labs, enjoyed sharing their passion for RNA when they met from July $11 - 14^{th}$ at the University of Lethbridge in southern Alberta, Canada. It's hard to describe the feeling when all of a sudden everybody gets excited. Maybe it's best to cite the keynote speaker, Reinhard Lührmann, who spontaneously encouraged all students at the conference dinner to stay in RNA research because "it is so much fun and people are so friendly". He certainly contributed tremendously to the success of the RiboWest 2010 meeting. Reinhard was able to convey his excitement for RNA through his keynote lecture, highlighting the advances in the splicing field over the last 25 years, as well as in the career workshop, where the students learned how he became an RNA Scientist. The other highlight of this year's meeting was the invited lecture by Jean-Pierre Perreault who showed us how sophisticated investigations on ribozymes can lead to a multitude of fascinating applications. Last but not least, a wide range of RNA research was presented in five sessions and many posters. Notably, this year the students judged each other in addition to the traditional PI judging which made the poster sessions very lively and interactive for everybody. The RNA community in western Canada is looking forward to the next RiboWest Meeting in Prince George, BC, in 2011. Ute Kothe & Hans-Joachim Wieden, organizers of RiboWest 2010



RiboWest 2010 – Awards and Fellowships:

Fellowships:

Roshani Payoe (Fahlman lab) Marc-André Comeau (Lafontaine / Abou Elela lab) Hilda Au (Jan lab) (Sarstedt-Fellowship)

Student Awards (selected by participating students):

Undergrad poster award: Dominic Mudiayi (Wieden lab) Undergrad oral presentation award: Hilda Au (Jan lab) Graduate poster award: Andrew Hudson (Russell lab) Graduate oral presentation award:

Evan Mercier (Wieden lab) Wiley Poster Book Award:

Nicholas Clarke (Zimmerly lab)

PI Awards (selected by participating PIs):

Oral Presentation Award: Roxanne Shank (Eudes lab) Wiley Presentation Book Award: Jeffrey Fischer (Wieden lab) RiboClub Presentation Award: Jeffrey Fischer (Wieden lab) Poster Awards: Dominic Mudiayi (Wieden lab) Philip Kubara (Golsteyn lab) Rajashekhar Kamalampeta (Kothe lab) Tracy Pepneck (Wieden lab) Wiley Poster Book Award: Shawn Xiong (McKenna lab)



FASEB Conference on Posttranscriptional control of gene expression: mechanisms of mRNAdecay July 11-16, 2010

Messenger RNA turnover is a critical, but frequently under-recognized, regulator of gene expression. The stability of an mRNA significantly dictates its steady-state accumulation and can be modulated by both intracellular and extracellular environmental factors to provide a rapid response mechanism to regulatory signals. Programmed stability or instability of mRNAs is an important mechanism for enhancing or repressing gene expression, respectively. Moreover, multiple surveillance pathways utilize mRNA turnover to maintain mRNA quality and ensure only properly processed transcripts exit the nucleus and are utilized as substrates by the translation machinery. In addition, noncoding RNAs and RNA interference have recently attracting considerable interest from all areas of the life sciences, since they rely on selective mRNA turnover for their biological consequence on gene silencing. Importantly, studies into the basic mechanistic understanding of mRNA turnover have enabled the development of novel pharmaceuticals that target mRNA decay pathways for therapeutic intervention.

Over 100 participants from leading scientists in the mRNA turnover field to new graduate students assembled in the Arizona Desert and shared their latest findings in formal oral and poster presentations as well as informal discussions throughout the meeting. The conference included a diverse array of participants from graduate students, postdoctoral associates and both junior and senior scientists. Internationally recognized leaders within the respective session topics chaired the sessions. However, an emphasis was placed on including more junior investigators and female investigators. Three of the nine session chairs were junior scientists and four of the nine chairs were female. The talks consisted of forty invited speakers and two speakers picked from abstracts per session to ensure incorporation of the latest developments into the meeting and provide platform presentations from graduate students and postdoctoral associates. All sessions were arranged by specific topics. A poster session with 43 posters was very successful and provide opportunity for all participants to present their research in a highly interactive environment.

Three posters were selected by a panel of judges as the most outstanding posters among graduate students and postdoctoral associates and were each awarded a cash prize of \$250 for their high level of research and presentation. One of these awards was sponsored by the RNA Society to **Dr. Sutapa Chakrabarti**, a postdoctoral associate in **Dr. Elena Conti's lab** at the Max-Planck-Institute for Biochemistry Structural Cell Biology. The title of her poster was, "*Structural insight into the helicase activity of UPF1 and its role in Nonsense-mediated mRNA decay*". In addition to the poster prize, support from The RNA Society helped defray the cost of attending the meeting for an invited speaker, **Dr. Chaolin Zhang**, a postdoctoral associate in **Dr. Robert Darnell's lab** at the Rockefeller University. The title of his talk was "*Elucidating RNA regulatory networks in the brain*". We are grateful for this help.

Nine formal sessions were organized in addition to a Keynote address on the first evening and a featured speaker on the last evening. Each Chair initiated their respective sessions with an overview of the state of the field and placed each oral presentation into perspective for the session. The formal sessions were: 1) 3' end events in mRNA decay; 2) 5' end and endonucleolytic events in mRNA decay; 3) Localization of translation and mRNA decay; 4) Specific RNA binding proteins and nucleases in mRNA decay; 5) Translation-mRNA decay interplay; 6) Postranscriptional regulation at the genome wide and organismal levels; 7) Biology of small RNAs; 8) RNA Quality control and processing; and 9) mRNA decay in disease and pathogenicity. Speakers covered the latest advances in their respective disciplines, and subsequent formal and casual discussions where very informative in guiding the potential future directions for the participating labs and the field in general.

Additional support for the meeting were provided from various sources including FASEB Summer Research Conferences, Eunice Kennedy Shriver National Institutes of Child Health and Human Development, National institutes of Environmental Health Sciences, National Institutes of Health, The Ellison Foundation, RNA Biology, PTC Therapeutics, Repligen Corp., and New England Biolabs. These funds were used to defray the costs for invited speakers, and refreshments throughout the meeting including coffee breaks, poster sessions and evening sessions.



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

The RNA Society sponsored poster awards for the 2010 Gordon Research Conference on "The Biology of Post-Transcriptional Gene Regulation" that was chaired by **Lynne Maquat** and co-chaired by **Manny Ares** this past July at beautiful Salve Regina University in Newport, RI. Awardees, their University affiliation and poster titles were:

Huili Guo, MIT, Whitehead Institute, Cambridge, MA *Mammalian microRNAs predominantly act to decrease target mRNA levels*

Daniel J. Hogan, Stanford University, Stanford, CA Concordant regulation of translation and mRNA abundance for hundreds of targets of a human microRNA

Michael Sadler, Stanford University, Stanford, CA *High-throughput ribosome profiling identifies P-site wobble interactions as significant limiting factors in translational elongation*

Chaolin Zhang, Rockefeller University, New York, NY Integrative modeling defines the Nova splicing-regulatory network and its combinatorial controls

Lynne and Manny thank GRC speakers and RNA Society members **Shoba Vasudevan**, **Kim Mowry**, and **Eric Phizicky** for serving as poster judges.

The 2012 Gordon Research Conference on "The Biology of Post-Transcriptional Gene Regulation" will be chaired **Manny Ares** and cochaired by **Melissa Moore**. Dates and the location for the 2012 meeting

chaired by **Melissa Moore**. Dates and the location for the 2012 meeting **Dan Hogan** will be **July 15-20, 2012 at Salve Regina University, Newport, RI**. Save the date!



Huili Guo in Pisac, a village along the Inca trail in the Sacred Valley in Peru





Chaolin Zhang



Michael Stadler

19th Annual Growth Factor and Signal Transduction Symposium on RNA in Motion September 9-12, 2010

The RNA Society provided support the 19th Annual Growth Factor and Signal Transduction Symposium on RNA in Motion, which was held September 9-12, 2010, and was attended by over 130 participants. A photo is attached that includes a number of the participants. Thanks to your generous donation, three participants received travel grants to attend the meeting: **Robert Azad** (Boston University), **John Bida** (Mayo Clinic College of Medicine), and **Dr. Ajaykumar Gopal** (UCLA).





Riboclub 2010 September 20-22, 2010

The 11th edition of the RiboClub Annual Meeting took place in Orford (Québec) on September 20th, 21st and 22nd, 2010. This meeting of RNA scientists from <u>Canada</u> and the Eastern USA covers different topics related to the chemistry, structure and biology of RNA. The meeting format is designed to encourage collaborations between the different labs and to stimulate the interest of young scientists in the field of RNA. The meeting size and the location give ample opportunity for discussions and interactions. Keynotes speakers this year were Marvin Wickens from University of Wisconsin and Jörg Vogel from the Max Planck Institute in Germany. In addition to more than 25 regular talks and 50 posters, the meeting also held a special session on Long non-coding RNA with invited speakers including Gordon Carmichael, Shinichi Nakagawa, Archa Fox, Tetsuro Hirose, Linda Penn, and Andrew Chess. The 12th edition of the Riboclub meeting is already scheduled and will take place from Monday September 19th to Wednesday September 21st, 2011. For more information, visit http://www.riboclub.org.

Through the support of The RNA Society, two Travel Awards were offered (2 x \$500) at the 2010 meeting. The recipients were : **Anne-Laure Finoux**, graduate student, Université de Montréal (Laboratory of Pascal Chartrand), and **Prasad Padmanabhan**, post-doctoral fellow, Université Laval, Québec (Laboratory of Barbara Papadopoulou).

2010 Rustbelt RNA Meeting October 22-23, 2010

In October 2010, scientist from Illinois, Indiana, Kentucky, Michigan, Ohio and Pennsylvania gathered to share their latest findings in RNA research. The 2010 Rustbelt RNA meeting was one of the largest in its 12-year history with 219 participants. To accommodate the increasing number of participants, the meeting moved to Cleveland (OH). The meeting was organized by Saba Valadkhan (Case Western Reserve University), David Rueda (Wayne State University), Paula Bubulya (Wright State University) and John Means (University of Rio Grande).

Over thirty talks were heard in six sessions over two days. The topics spanned *Ribosome and Translation Control, RNA Modification, Structure and Function, Regulation of RNA Processing, Regulatory Non-protein-coding RNAs* and *Ribotechniques and Bioinformatics.* In addition two keynote lectures by Timothy W. Nilsen (Case Western Reserve University) and Adrian Ferré d'Amaré (Fred Hutchinson Cancer Research Center) topped the program.

The 2010 meeting was marked by a large number of outstanding lectures and posters. Three lectures and posters were recognized for their quality. The best talk awardees were:

Molly Evans (Subha R. Das' lab, Carnegie Mellon University, "Investigation of a debranching enzyme")

Sarah Geisler (Jeff Coller's lab, Case Western Reserve University, "Decapping regulates non-coding RNA-dependent histone modification in Saccharomyces cerevisiae"):

Mallory Havens (Michelle L. Hastings' lab, Rosalind Franklin University, "Biogenesis of Mirtrons Independent of Splicing and the Microprocessor")

The best poster awardees were:

Mario Blanco (Nils Walter's lab, University of Michigan, "Single molecule FRET studies of yeast pre-mRNA splicing")

Lindsey Aurora (David Markwardt's lab, Ohio Wesleyan University, "The mRNA export adaptor aly-3 is a an alternatively spliced target of the nonsense mediated decay (NMD) pathway in C. elegans")

Faegheh Jafarifar (Paul L. Fox's lab, Cleveland Clinic, "Modulation of microRNA activity by hnRNP L regulates VEGFA expression in hypoxia")

The 2011 Rustbelt RNA meeting will take place in Dayton (OH). If you wish to learn more about the Rustbelt meeting, please visit <u>www.rustbelt.org</u>. We would like to acknowledge funding from the RNA society and the National Science Foundation.



4th International RNA Stability Meeting October 17-20, 2010

Montreal, Canada, is known for many things: its culinary diversity, its mosaic of cultures, and of course, its passion for hockey. In addition, last October, Montreal joined a short list of host cities for the RNA Stability meeting, the previous editions of which took place in Florence, Italy (2003), Arolla, Switzerland (2005) and Asheville, USA (2008). Since it began, the RNA Stability meeting has brought together researchers from across the globe to share the most recent discoveries in RNA turnover and stability. This 4th edition focused on RNA turnover and translation, and the biological and pathological ramifications. With over 30 invited speakers and over 150 attendees from across the globe, the conference, organized by Drs. Imed Gallouzi and Jeff Wilusz, and coordinated by Nancy Dufour, promised to be rewarding. It certainly exceeded expectations.

The conference started off with a keynote presentation by Dr. Thomas Tuschl that covered the importance of RNA-protein interactions and their roles in diseases. This was followed the next day by a veritable marathon of science: 26 talks and a poster session, spanning over a 14-hour period. Fortunately, the quality of the science and presentations was nothing short of exceptional, making it a rewarding day despite the long hours. Highlights of the day were numerous, including discussions of mRNP structure and function, the role of nuclear/cytoplasmic communication in determining RNA stability, the biological implications of known and novel RNA decay factors, and many others. The following day included more excellent presentations that explored how mRNA localization, translation and turnover are related, as well as another poster session. Both this poster session and the one from the previous day gave students, post-doctoral fellows, and principal investigators the opportunity to casually share their recent work with their peers in a friendly and comfortable environment. The day was concluded with a gala that would rival any Hollywood event. Hosted in the glamorous Caf 'Conc hall of the Marriott Chateau Champlain hotel, many of the conference attendees donned their suits, tuxedos or evening gowns for a night filled with fine Montreal cuisine. After many high-level intellectual discussions, no one hesitated to unwind, whether it was through animated conversations over a few glasses of wine, or by "tearing it up" on the dance floor! This group of RNA researchers certainly stood up to their "work hard, play hard" reputation.

Despite a fun-filled evening, everyone was ready for the next, and final, day of the conference. Like the preceding days, this one was filled with high-quality presentations, the vast majority of which contained unpublished data. Among the many interesting presentations were several which included results that advance our understanding of how RNA decay is regulated through the activities and processing of RNA-binding proteins and microRNAs. The conference then wrapped up with the much-anticipated poster and oral presentation awards, rewarding five students, though one had to sympathize with the difficult choices the judges were faced with given the overall quality of work presented. These awards were provided by generous donations by several of the conference's sponsors (The RNA Society, Invitrogen, New England BioLabs and Thermo Fischer Scientific). While there were too many other companies and organizations which contributed to list here, Invitrogen, the Canadian Institutes of Health Research (CIHR), the McGill Department of Biochemistry and the McGill Goodman Cancer Center deserve particular mention for their exceptional donations, without which the conference would not have been possible.

RNA Society awards for outstanding oral presentations went to: Ashleigh Moore, University of South Carolina, Columbia, SC *The MicroRNA miR-542-3p Regulates Cellular Apoptosis*

Alexa Dickson, Colorado State University, Fort Collins, CO CELF1 Regulated mRNA Decay in Muscle and Myotonic Dystrophy

The RNA stability conference first began in 2003 when a group of RNA researchers with common interests wished to have an opportunity to get together to share their ideas and work together. Just as it was back in Florence, this 4th edition of the conference focused on a few key themes: novelty, quality, and friends. The work and ideas shared were novel, and in many cases unpublished. The data presented by these researchers was of a high-quality, and it was clear that advancing communal knowledge was the goal. Finally, this group of scientists is clearly close-knit and they are more than colleagues – they are friends. This allows for unpublished data to be presented without worry, and challenges everyone to do their best. Even for a first-time attendee, it was apparent that this conference brought together bright minds from across the globe with the common goal of unraveling the mysteries of RNA stability and translation, to better understand its biological and pathological effects. It is doubtful that anyone, from students to professors, left without a feeling of satisfaction and excitement of what lies ahead for this field, and with a refreshed enthusiasm for their research.



New Frontiers of Functional Nucleic Acids: Chemistry, Biology and Applications symposium at Pacifichem 2010 December 15-20, 2010

The Pacifichem symposium, entitled "New Frontiers of Functional Nucleic Acids: Chemistry, Biology and Applications" and held on December 18-19, 2010 as part of the much larger Pacifichem meeting. We would also like to take this opportunity to announce again the winners of the Outstanding Young Researcher Oral Presentation Awards (sponsored by Nucleic Acids Research journal) and the Outstanding Young Researcher Poster Presentation Awards (sponsored by the RNA Society).

Two Winners of the Outstanding Young Researcher Oral Presentation Awards:

Takeshi Baba, Graduate School of Pharmaceutical Sciences, Osaka University, Japan (laboratory of Prof. Satoshi Obika): "Synthesis and properties of a novel nucleic acid that alters hybridizing ability depending on redox conditions"

Yoshiyuki Murakami, Department of Biotechnology and Life Science, Tokyo University of Agriculture and Technology, Japan (laboratory of Profs. Kazunori Ikebukuro and Koji Sode): "Enzyme labeling using luciferase-fused Zn finger protein for DNA aptamer and its application to detection"

Four Winners of the Outstanding Young Researcher Poster Presentation Awards:

Taiga Fujii, Department of Engineering, Nagoya University, Japan (laboratory of Prof. Hiroyuki Asanuma): "Coherent heteroclustering by using DNA as a scaffold for highly sensitive In-Stem Molecular Beacon"

Gosuke Hayashi, Department of Chemistry, University of Tokyo, Japan (laboratory of Prof. Hiroaki Suga): "Flexible aminoacylation by 3' terminus mutants of flexizyme"

Masayuki Kurata, Department of Energy and Hydrocarbon Chemistry, Graduate School of Engineering, Kyoto University, Kyoto, Japan (laboratory of Prof. Sei-ichi Nishimoto): "Selective trapping at cytosine derivatives of photosensitizer-injected and migrated hole in DNA"

Maureen H. McKeague, Department of Chemistry, Carleton University, Canada (laboratory of Prof. Maria DeRosa): "Development of aptamer probes for fumonisin B1 detection"



Upcoming Meetings of Interest

ASM Conference on Regulating with RNA in Bacteria March 7-11, 2011 San Juan, Puerto Rico http://www.asm.org/index.php/meetings/2010-asm-conference-on-regulating-with-rna-in-bacteria.html

After decades of a protein-centric view of gene regulation, it has become clear that the control of gene expression by regulatory RNAs is equally important. New small and large noncoding RNA molecules continue to be discovered at a staggering rate in bacterial model organisms as well as in the transcriptomes of bacterial communities. Newly discovered structural and functional aspects of such RNAs have reached a degree of breadth that requires a meeting with a strong focus on bacterial RNA research to fully address the diversity of these new regulators of gene expression and bring together the scientists involved in these studies. Regulating with RNA in Bacteria will be the first conference dedicated to this topic and will be a premier forum for the presentation of cutting-edge advances and the latest perspectives in the areas of discovery, mechanisms and structure of bacterial riboregulators.

The main goal of the meeting is to bring together researchers that use different approaches to study different aspects of RNA regulation in divergent bacterial systems, thus facilitating cross-fertilization of ideas among investigators, postdoctoral fellows and graduate students studying a variety of bacteria. Organizers: Gisela Storz, Jörg Vogel, Karen Wassarman.

Corn Belt RNA Meeting

November 4 – 5, 2011 Columbia, Missouri

The 2'-hydroxyl group thrives in the Heartland! Mark your calendars for the first annual Cornbelt RNA Meeting held on the campus at the University of Missouri - Columbia, on November 4-5 2011. The meeting will begin at 1:00 p.m. Friday, November 4, with a keynote plenary seminar (speaker to be announced) and will continue until mid-afternoon on Saturday, November 5. Additional talks, selected from submitted abstracts, will be presented Friday afternoon, evening and on Saturday morning.

The meeting is open to all RNA scientists, from the Midwest and further away. The additional selected talks will emphasize presentations by students and postdocs, chosen from submitted abstracts. The schedule will encourage social interaction among the attendees at posters so posters from all attendees are encouraged! Participating in this 2-day event will require only one night's stay, making the meeting affordable for all groups, including those with limited travel funds. Funds from the RNA Society will be used to help defray costs for accommodations for students and postdocs.

For more information, please contact the organizers: Frank Schmidt <u>schmidtf@missouri.edu</u>, Brenda Peculis <u>peculisb@missouri.edu</u> and Don Burke <u>burkedh@missouri.edu</u>. Or search for RNA on <u>http://scienceevents.missouri.edu</u>

6th MICROSYMPOSIUM on SMALL RNAs IMBA – Vienna, 2011 – May 16th – 18th





Employment

The RNA Society is pleased to make this Employment and Careers web page 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.

Faculty positions

Position available in Dept of Cell Biology & Molecular Genetics of the University of Maryland , College Park, United States

Position posted on Monday, October 18, 2010

1. Functional RNA. Areas of interest include but are not limited to non-coding RNAs involved in the regulation of gene expression, epigenetics and development, using microbial, plant, insect and mammalian systems, with emphasis on approaches involving cell biology, biophysics, bioinformatics, and/or genomics.

2. Host-Pathogen Interactions. Areas of interest include but are not limited to molecular mechanisms of virulence and resistance to pathogens of plants, fungi, insects or other model organisms, with emphasis on approaches involving genetics, cell biology, bioinformatics, and/or genomics.

Contact : <u>Dr Jonathan Dinman</u> Tel : 301-405-8730 Email : mbarott@umd.edu

Position available in Dept of Biology of the University of Rochester , Rochester , United States Position posted on Monday, October 18, 2010

The Department of Biology at the University of Rochester (<u>www.rochester.edu/College/BIO</u>) is recruiting a tenure-track faculty member with expertise in genomics and/or systems biology. This position is part of a larger interdepartmental Initiative in Genomics and Systems Biology, as well as a broader initiative in Arts, Sciences and Engineering (AS&E) in Systems Science.

We are searching broadly for biologists who employ a systems-level perspective to investigate questions in any of the following fields: evolutionary genetics, developmental, cell and molecular biology, and biochemistry. The successful candidate will join a multidisciplinary biology department with colleagues interested in ecology and evolutionary biology, biochemistry, and developmental, cell and molecular biology, affording opportunities for collaborative interactions across research fields.

Our research and graduate programs are integrated into a large world-class life-sciences research campus, including programs in Computer Sciences, Brain and Cognitive Sciences, and Biomedical Engineering in AS&E, as well as Biochemistry and Biomedical Genetics at the adjacent School of Medicine and Dentistry. Research activities across the university are supported by core facilities that include Functional Genomics and Deep Sequencing, Proteomics, and Imaging cores. More information on the search, University and genomics/systems biology initiative can be found at http://www.rochester.edu/College/BIO/search2010.html . Candidates with a strong record of accomplishment should upload a CV, statement of research interests/plans, pdfs of two publications, and arrange to have three letters of recommendation uploaded at http://www.rochester.edu/fort/bio . Review of applications will start November 1st and continue until the position is filled.

The University of Rochester is an Equal Opportunity Employer, has a strong commitment to diversity and actively encourages applications from candidates from groups underrepresented in higher education. Contact :

Dr Gloria Culver Tel : 585-275-8837 Fax : 585-275-2070 Email : <u>bholik@ur.rochester.edu</u>



Postdoctoral positions

Position available in Dept of Biomolecular Chemistry of the University of Wisconsin-Madison , Madison, United States Position posted on Monday, November 22, 2010

A postdoctoral position is available on an NIH-funded project to study RNA-based regulation of gene transcription in yeast. The helicase Sen1 and RNA-binding proteins Nrd1 and Nab3 repress Pol II transcription by attenuation and by silencing. We are exploring the mechanisms and targets of this pathway (Steinmetz et al., Molec. Cell 2006, 24:735-746; Kuehner and Brow, Molec. Cell 2008, 31:201-211). A Ph.D. in molecular biology/biochemistry or a related field is required. Experience in yeast molecular genetics/genomics and RNA/protein biochemistry is preferred. The successful candidate will have excellent communication skills, be highly motivated, and function well in a research team. The intial appointment period is one year and is renewable. The Brow lab and UW-Madison campus provide an excellent training environment for RNA science. Applicants should submit a cover letter describing research experience and interests, a CV, and a list of three references to Dr. David Brow at <u>dabrow@wisc.edu</u>.

Dr David A Brow Tel : 608-262-1475 Email : <u>dabrow@wisc.edu</u>

Government & corporate positions

Position available in Dept of Research and Development of the Biosearch Technologies, Inc. , Novato, United States Position posted on Monday, November 15, 2010

Applicant is applying for a new full-time position in Research and Development. The focus is on developing and applying techniques in fluorescence microscopy; in particular, this includes the design, implementation, analysis, and protocol development of fluorescence in situ hybridization (FISH) techniques using dye-labeled oligonucleotide probes. The successful applicant will be expected to lead the project, will generally work independently, and will interface extensively with Manufacturing and Quality Control to implement procedures for QC of the Company's FISH products.

The scientist will exercise technical discretion in the design, execution, and interpretation of research experiments. Interaction with customers in the form of technical support and protocol trouble-shooting will be necessary. Scientist will also be asked to prepare technical reports, summaries, protocols, and give oral presentations of project results. Scientist is expected to be familiar with the scientific foundations and literature relevant to the projects. Additional responsibilities will include collaboration in other projects outside of microscopy in the Research and Development program. Scientist will report directly to the Director of R&D at the Company.

Necessary skills and experience:

At least one year experience with fluorescence microscopy in a research setting; biology/biophysics/molecular biology/clinical/pathology background; cell culture, aseptic techniques; statistics and data analysis; ability to perform and contribute as part of a team under stringent deadlines. Good communication and presentation skills required. Computer literate with imaging software, and general Microsoft Office programs (Word, Excel).

Preferred but not required:

Bioinformatics; sequence searching on public databases (GenBank, etc); sequence alignment; spectroscopy; dye biochemistry; experience in following Standard Operating Procedures (SOP).

Qualifications:

M.Sc. degree or higher equivalent in a relevant scientific discipline, PhD preferred. 1-3 years of related post-degree lab experience in fluorescence microscopy. Degrees in Biology, Biophysics, Molecular Biology, Genetics, or related fields are preferred. Department: Research & Development. Competitive salary based on relevant education and experience. Position open.

Contact : <u>Dr Hans Johansson</u> Tel : 415-883-8400 Email : <u>hr@biosearchtech.com</u>



eJobs with the RNA Society



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 LastName_eJobs.doc (for example, Jabri_eJobs.doc)
- ▶ Return the saved file via email to <u>rna@faseb.org</u>.

Type of position (please click on one gray box to select category of job)Postdoctoral Fellow PositionsFaculty PositionsOther Positions (please specify)

Description of position (please include area of research, skills required, start date and duration of position)

Contact information (*required*) (Must be a member to post on this site) Name Organization Dept. Address State/ Prv. City ZIP/Postal Code Country Tel Fax (optional) E-mail URL (optional) Signature (electronic signature of available) Date

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

