RNA Society Newsletter

February 2007

From the Desk of the President, Brenda Bass

The RNA Society: then, now, and ...now what...

When I was asked last year to run for President of the RNA Society, I thought a lot about why I would want to do this. I am someone who likes to do science. I like to do experiments—my day gets brighter just by weighing out Tris. Of course, I rarely get to do experiments these days, but the next best thing is talking to the people in my lab who are doing the experiments. And my lab treats me very well. Understanding that it is important to keep your mentor happy, they sometimes give me things to do in the lab. Simple things that they know I won't mess up. Over the holidays I got to "chunk worms" for a student who was out of town. Yesterday I got to put labels on tubes to hide the old labels for a "blind" experiment. Life is good.

(continued on page 2)

In this issue :

From the Desk of… (Continued from page 1)

In contrast, I really don't like to serve on committees, although I like to think I am organized and do a good job. So why in the world would I agree to be nominated for President of the RNA Society? As I said, I thought about this a lot before agreeing to go on the ballot. And the more I thought about it, the more I realized that if the RNA Society wanted me, I just had to do it. Because, in fact, I literally do not think I would be the scientist I am today if it wasn't for the RNA Society.

Then

At the 1983 RNA Processing meeting, the precursor to the RNA Society meeting (pre-RS meeting), I gave my very first scientific talk. It was a memorable experience. I was a graduate student in Boulder, and was recovering from a skiing accident. I had been released from crutches a day before the meeting, but still had a cast that covered my whole leg except for my foot. I was just learning how to walk with a straight leg, and was petrified that I would topple over on stage and use up some of my time while the session chair helped me to my feet. I gripped the podium and did not leave it once. The long-remembered 10 foot "pointer" used at Cold Spring Harbor meetings threatened to snap it was twitching so violently in my unsteady hand.

My talk went fine. I had lots of questions, and people came up afterwards to discuss it further. At the banquet party that evening the late David Apirion told me that he didn't know what was physically wrong with me, but he sweetly assured me that if only I could walk better, he would ask me to dance. You see, it was cold that year at Cold Spring Harbor and my cast was always covered with long pants. Many people assumed I was permanently disabled.

I also asked my first question in a public venue at the pre-RS meeting. The first meeting I organized was the pre-RS meeting. The pre-RS meeting was the forum through which I met other scientists---my life-long friends, and those famous ones whose papers I had carefully studied at home. I always went home with a new insight or different way of thinking about something. I learned what was good science and bad, and became a critical scientist. And, importantly, the meetings were always really fun.

Now

Certainly the RNA Society meeting has changed. When I gave that first talk in 1983, there were about 150 people at the meeting. Last year at the RNA Society meeting in Seattle there were 919 people, and in some years we exceed 1000. Do the same things happen at these large meetings? Do they create an environment that teaches and reinforces the ways to do good science? Are they fun?

I'm not sure, but I still go to the RNA Society meeting religiously, and the one year I couldn't go, I missed it a lot. All during the subsequent year I felt a bit out of it. I didn't think I had my finger on the pulse of what was really happening in the huge field of RNA science. Ah, what was <u>really</u> happening. It's interesting isn't it, that it is sometimes hard to know what is really going on in a set of experiments by reading the paper (except of course if it is in the RNA Journal). You think you know, but then at the RNA Society meeting someone says, "…oh, but did you notice they didn't do that important control?" or, "…but don't you realize they did that experiment in a strain that….", or "… but what was the magnesium concentration?.." or "Listen, what you really should do is talk to so and so who has a poster today…". And I like to think that this still happens.

But it takes more effort than it used to. If there are only 100 people at a meeting, and only one bar, you don't need to find that person, they will bump into you as the night wears on. Interestingly, when people discuss the merits of a particular venue for the RNA Society meeting, they inevitably bring up whether it was easy or hard to find the people they wanted to talk with. Did people scatter after the session or did they all end up on the steps outside drinking beer? Were they at Johnny's bar down the street?

Now what?

Of course, the RNA Society is not just about the meeting. It is baffling to me how a society can have a personality, but the RNA Society certainly does. The RNA Society has a reputation for very high standards, and for providing a supportive environment that fosters discovery. Considering how many important discoveries have been made in our field, something must be working. We all should be very proud of the RNA Society.

So what is the best way to bring the RNA Society into the future while upholding its reputation? Certainly things are working, but do changes need to be made? While I can't promise I will get back to all of you, I would really love to know what you think. Put THE FUTURE OF THE RNA SOCIETY in the subject line, and I will read it, sooner or later, in between labeling all of those tubes. bbass@biochem.utah.edu

RNA Society Women in Science
Lynne E. Maquat, Past President

After five years of successfully sponsoring a Career Mentoring Workshop over lunch at the annual RNA Society meeting, we are ready to initiate a new event that we hope will also become an annual offering. This event aims to enrich the scientific environment for everyone by discussing ways to improve the working environment for women.

While more and more women are training to be scientists, statistics show that proportionately fewer women than men make the rank of faculty member at research institutions. Furthermore, women at research institutions are underrepresented in administrative positions despite their leadership qualifications. Women from minority racial and ethnic backgrounds are essentially absent among the nation's leading science departments.

A recent report put forth by the Committee on Maximizing the Potential of Women in Academic Science and Engineering examined why more women than men leave science and engineering at each step of the academic ladder. Their findings can be found at the National Academy of Science web site (http://orsted.nap.edu/openbook.php?record_id=11741&page=1), and they are summarized verbatim as follows.

1. Women have the ability and drive to succeed in science and engineering.
2. Women who are interested in science and engineering are lost at every educational transition.
3. The problem is not simply the pipeline.
4. Women are very likely to face discrimination in every field of science and engineering.
5. A substantial body of evidence establishes that most people – men and women – hold implicit biases.
6. Evaluation criteria contain arbitrary and subjective components that disadvantage women.
7. Academic organizational structures and rules contribute significantly to the underuse of women in academic science and engineering.
8. The consequences of *not* acting will be detrimental to the nation's competitiveness.

RNA Society member, HHMI Investigator and Yale Professor of Molecular Biophysics & Biochemistry **Joan A. Steitz** served on this important Committee. We are very pleased that Joan will be guest speaker at our first RNA Society Women in Science dinner during RNA 2007 in Madison. Joan will talk about career impediments to women and racial/ethnic minorities. She will also discuss the steps necessary to realize the potential of the best and brightest minds in academic science.

The event is open to everyone attending the meeting. In an effort to make the event most meaningful, meeting registrants will be asked to sign up for the dinner in a way that allows us to organize seating. We aim to place graduate students and post-docs with faculty mentors who can address issues raised by Joan's presentation, among them the nuts and bolts of balancing career with family. The event is being organized by myself and **Beth Tran**, who is currently a post-doc in the lab of Susan Wente at Vanderbilt. Beth represents graduate student and post-doctoral members of the RNA Society (see piece by Beth Tran, page 9 of this issue).

We hope to see you at the first annual RNA Society Women in Science Dinner!

RENEW YOUR MEMBERSHIP NOW!

For those who have not renewed your membership, please do so now. We have a new **ONLINE RENEWAL SYSTEM** (www.rnasociety.org/membership) system that makes it very easy to rejoin the Society. At the same time, you can update your directory listing using the online directory. This new web-based system gives us a searchable directory that members can access in a few clicks. RENEW NOW!

From the CEO's desk
Evelyn Jabri

Thanks for another successful year. Since the awarding of the Nobel Prize in Physiology to **Craig Mello** and **Andy Fire** for their work on RNAi, I've spent the months thinking about where I think the Society should be 5-10 years from now. I'm still musing but need your input.

Obviously RNA is hot, but is the RNA Society hot as well? I was very disappointed to see that neither Andy nor Craig were members of the RNA Society at the time the award was announced. I wondered why such prominent RNA scientists who have attended our meetings in the past were not part of our community. I still don't know the answer but it did get me thinking about what we could do to attract them (and likely many other RNA scientists) to our organization. This is not about increasing our membership numbers - nor does it have anything to do with money. It has to do with maintaining scientific breadth and diversity in our Society so that we can all benefit from our collective knowledge.

Breadth and diversity bring expansion which opens the risk that Society meetings (and perhaps the whole organization?) will morph into a larger amorphous and nondescript aggregate. Larger societies, such as ASBMB and ACS, now include 5-day RNA symposia within their own meetings. These societies are also trying to increase their membership. Will we, as Star Trek fans would say, "be assimilated"? Is that a good or bad thing? Personally, I think assimilation will take away the character and cohesiveness of the Society.

Olke Uhlenbeck, writing for the August 2005 issue of the Newsletter (www.rnasociety.org/newsletter) also worried about our future. In that piece, Olke asked some questions that have paved the way for some of the changes we are undertaking in 2007: "Will lab heads continue to attend the RNA Society meeting? Will the Society meet the needs of RNA scientists from around the world, not just in the US and Canada? … Most importantly, will the youngest generation of students and postdocs grow to feel that they, too, are integral to the Society and its future?"

With the Society and the journal on solid financial footing, we have begun to address some of these questions and focus our immediate efforts on three initiatives:

1) Revamping the meetings program by adding a plenary lecture (**Tom Cech** will give it this year in Madison) and a Women in Science RNA Society Dinner (discussion led by **Joan Steitz**) (see page 3 and page 6)
2) Investigating options to take our meeting to Asia to meet the needs of the growing RNA communities on the other side of the world (page 6)
3) Starting a graduate student/postdoc group to help us develop programs that will engage and retain the junior members of the Society (see page 9). The number of graduate students and postdoc members increased in 2006 (278 in 2006, up from 86 in 2005!) and we need to think carefully about what they need from a Society and how best to give it to them.

None of these initiatives would have been possible without the dedication of two Society members: **David Lilley**, chair of the meetings committee, who has worked diligently to investigate options for our meetings programs; and **Lynne Maquat**, Past President, who has guided and mentored **Beth Tran** and **Daniel Golden,** our grad student/postdoc representatives as they plan for RNA2007 (see page 9).

Can we do more outside of our annual meeting? We must! Increasingly people are turning to the web and their favorite handhelds for scientific information. We now offer a web-based Membership Renewal and Member Directory. Should we also come together virtually through blogs and forums focused on RNA research and education? I would venture a guess that lab heads are too busy to participate regularly in these forums, but could these web tools be used by our junior members to build their community of RNA colleagues? Can they also serve as a mechanism for retired members to continue to contribute to our Society?
(continued next page)

Some ideas to ponder:

- Some societies are using the web to disseminate information. For example, ASCB now provides podcasts and webinars of keynote/symposia and award ceremonies on their Society website. Would you like to hear a podcast that includes an interview with our Lifetime Achievement award winner or a webinar of our plenary lecture?

- Should we start something like Slashdot (http://slashdot.org/) where members provide "news for RNA nerds, and stuff that matters to RNA scientists". One incarnation of this could be an on-line journal club. Members could post short synopses of selected papers (complete with a link to the published manuscript) to alert members about the work. It may be a great way for junior scientists to write about RNA and hone their scientific writing skills. It could also be used as a teaching tool if others contributed to the discussion about these papers.

- We will soon list RNA clubs on our Society website. Should we provide tools for each club to generate and enhance a "club website"? If so, what tools would be useful?

Increasing our web offering is doable. It's really a matter of what we should offer and who will do all of the work. If current web trends are an indication, the Society should simply provide the tools and let its member post what they think will be useful to other members. We would of course have moderators to monitor the content and ensure that it is appropriate, but members would build what they need most.

So as you read this Newsletter, please ask yourself: Where do I see the Society in 5 or 10 years? Write to me or write a short piece for the Newsletter describing your vision. Think outside the box and don't worry about whether it can be done with existing technology or people power. We'll work on the details later. I look forward to hearing about your vision. ejabri@gmail.com

IT'S NOMINATION TIME!

Interested in shaping the future of the RNA Society? Run for office. In 2007 we will elect a President and 3 new Directors. Any RNA Society member has the opportunity to place candidates for any open position on the slate 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 2007, the nominating committee, members of which will be announced in a email to all members, will accept petitions for candidates until March 1st, 2007. Elections will happen using our eBallot system starting in April, 2007. All members will be notified that voting has commenced via an Email communicated from the Society office. For more information, please contact Brenda Bass (bbass@biochem.utah.edu) or Evelyn Jabri (ejabri@gmail.com).

Calling all RNA Clubs around the world!

The RNA Society would like to list you on our website so that members and non-members can find the Club(s) nearest them. Please send us your Club name, its address, the contact person (with email address if possible), and the URL to your Club's website. We'll compile a list and post it on the RNA Society website.

Future RNA Society Meeting sites

David M.J. Lilley

Chairman of the Meetings Committee

RNA2007 is only a few months away and the web site is up and running at http://www.union.wisc.edu/rna/index.html. The deadline for abstract submission is Monday 26 February. In my last piece I mentioned that we intend to explore the format of these meetings a little, and in that spirit the organizing team of Sam Butcher, Erik Sontheimer, Rachel Green and Maria Carmo-Fonseca have introduced a number of new features. There will be a Women in Science RNA Society dinner, and Joan Steitz will present the findings from a recent NRC report called "Beyond Barriers and Bias: Maximizing the Potential of Women in Academic Science and Engineering". The first night will feature an opening keynote lecture to be delivered by Tom Cech. This is an exciting new departure, and I think that we are in for a fabulous meeting in Madison.

Next year we go back to Europe, with a meeting organized by Reinhard Lührmann in Berlin. This will run from Monday 28 July until Saturday 2 August, 2008, so please note these dates in your diary. The meeting is just a little longer than earlier RNA society conferences, but the intention is to have a free evening mid-week, with dinner afloat. RNA2008 will begin on the Monday night with a special session of invited talks.

It is my responsibility to be thinking ahead to where we can hold future meetings. There have been a few grumbles about Madison, which were not really borne out by polling the membership. We will return there in 2009. Seattle was wonderful, and I think there would be a lot of support for returning. I would also welcome suggestions for other locations able to handle the fairly demanding requirements of our meetings.

Thinking into the future I am currently looking into the feasibility of holding a future meeting in the far east. One potential venue is Shanghai, though we need to look into all possibilities. This would be a new departure for the RNA Society, but with the exciting rise of biological sciences in China and other eastern countries this is something we should seriously consider. Writing around to senior members of the society has met virtually unanimous support for the idea, but I would like to hear from the membership more broadly. Whether a grad student, post-doc or PI, this is your society, so I want to hear how you feel about this.

The whole purpose of the RNA Society is to facilitate communication of all aspects of RNA science between laboratories working on all aspects of RNA biology and chemistry. The annual meeting is the primary vehicle for that, and we want to keep it moving forward as a lively and exciting event. So please do write to me with your opinions.
d.m.j.lilley@dundee.ac.uk

CONTRIBUTE TO OUR SOCIETY JOURNAL, *RNA*

In the coming year, the *RNA* Journal and CSHP would like to publish more short (5-8 pages) reviews. 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. twn@cwru.edu

RNA 2007

Twelfth Annual Meeting of the RNA Society

Madison, Wisconsin
May 29-June 3, 2007

Topics include:

RNAi and miRNA	RNP Function and Dynamics
RNA Silencing	RNA Transport and Localization
Riboregulation in Development	RNA Editing and Modification
Noncoding RNA	tRNA, snoRNA and rRNA
RNA Catalysis	Ribosomes
RNA Structure and Folding	Translation Regulation
Splicing Mechanisms	Bioinformatics
Splicing Regulation	RNA Turnover
3' End Formation	RNA-Protein Interactions

NEW for 2007! This year, our meeting will begin in an exciting new fashion, with a plenary lecture given by Tom Cech. We will also initiate a 'Women in Science RNA Society' Dinner. Joan Steitz will present the findings from a recent NRC report called "Beyond Barriers and Bias: Maximizing the Potential of Women in Academic Science and Engineering". All are welcome to attend these new events at the annual meeting. Graduate students and postdocs take special note - we have new networking activities just for you so join us for the fun.

Organizing Committee: Sam Butcher (University of Wisconsin-Madison), Maria Carmo-Fonseca (University of Lisbon), Rachel Green (John Hopkins University), Eric Sontheimer (Northwestern University)

The Organizing Committee invites abstracts on all aspects of RNA structure, function, biology and chemistry. Abstracts for oral presentations will be selected by the Committee and the Session Coordinators. Topics covered in oral presentations will be determined based on the abstracts received. Abstracts that are not selected for oral presentations will be presented as posters.

All members will receive an email announcing the start of the registration and abstract submission process at the end of December 2006. Others interested in participating should please check the RNA Society website (http://www.rnasociety.org) for details of the annual meeting. The deadline for registration and submission of abstracts is Monday February 26th, 2007.

Contact: The RNA Society, 9650 Rockville Pike, Bethesda, MD 20814-3998 USA Email: rna@faseb.org
Website: http://www.rnasociety.org/

The Promising Future of RNA Bioinformatics

A workshop entitled "**Computational approaches to noncoding RNAs**", organized by Elena Rivas (Washington University, USA) and Eric Westhof (University Louis Pasteur, France), was held in Benasque (Spain) from the 16th of July to the 28th of July 2006. It gathered a group of 55 researchers mostly theoreticians and computational scientists working on problems related to the computational analysis of functional and regulatory RNAs. Two young scientists were supported by the RNA Society, Jens Reeder from Bielefeld University and Andrew Uzilov from Berkeley.

The major objective was to present and discuss the state of RNA computational biology, to identify needs, and to propose new developments for the identification, annotation and computational analysis of functional and regulatory RNAs present in genomes. Specifically, some of the issues that were discussed focused on : (1) RNA structure prediction, Structural alignments, RNA homology search; (2) RNA gene-finding and genome annotation; (3) RNA databases and RNA Ontology.

Very interestingly, several participants suggested that a contest like the one successfully applied to proteins, CASP (Critical Assessment of techniques for protein Structure Prediction), be organized for the prediction of RNA structure. Such world-wide structure prediction experiments are extremely useful, productive and constructive for benchmarking the progress made in the generation of new ideas and the assessment of the newly developed techniques. The setting up of such a contest would have to overcome several hurdles. In the case of RNA, two levels would have to be distinguished, either secondary structure or tertiary prediction structure. A main question is how to be aware that some RNA molecules are being investigated experimentally at the secondary or tertiary structure levels. Clearly, despite the amazing progress and production of crystallographic or NMR RNA structures, the number of new structures per year is not large.

The proposed process would follow these lines : (i) A structural group working on a new RNA structure (X-ray, NMR, chemical probing, cryo-electron microscopy,…) is willing to "play the game"; (ii) The group sends the RNA sequence to the coordinator; (iii) The coordinator, without disclosing the identity of the experimental laboratory and the function of the RNA, distributes the sequence to the theoreticians ready to tackle this challenge. The theoretical group must agree not to distribute further the sequence or disclose its progress or results in any fashion before publication by the experimental group; (iv) The deadline for sending back the results to the coordinator is set by the experimental group when they plan to submit their structures for publication; (v) During a special meeting, the coordinator discloses the theoretical results and they are compared with the published experimental structures; (vi) Special guidelines and rules for the comparisons will be agreed upon before the writing and publication of the analysis.

Several laboratories dedicated to RNA bioinformatics around the world have expressed their keen interest to enter such a contest. The success and real progress generated by CASP in protein structure prediction should encourage us all to pursue this endeavor which, for want of a better name, could be called CARP (Critical Assessment of techniques for RNA structure Prediction). Anyone with suggestions for a better acronym is most welcome to communicate it. I have agreed to act as the coordinator for the first trials. I therefore incite willing experimental groups to contact me and I assure them that their efforts and work will be fully safeguarded. Please feel free to contact me directly with comments, suggestions or questions. E.Westhof@ibmc.u-strasbg.fr

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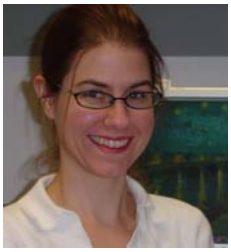
Graduate Student / Postdoc Pages

These pages are written for, to, and in some cases by our younger RNA Scientists. However the information, opinions and experiences here are by no means exclusive to this group. We are encouraging submissions by authors who wish to speak to this audience, to offer advice, information and commiseration as needed. If you have advice, opinions or stories to share, send them in!

RNA Society Student/Postdoc Representatives: An Introduction

Beth Tran and Daniel Golden

Successful graduate school and postdoc experiences are imperative for establishing a fruitful scientific career. Strong peer networks and collaborations are critical to this success. Postdocs and graduate students are our future scientific leaders, collaborators and colleagues. However, the unique perspective of this important group of scientists is not always heard. To remedy this problem, the RNA Society has established two positions to represent postdoc and graduate student members to the RNA Society Board.



Daniel Golden and I have been appointed as the RNA Society's first student/postdoc representatives. Currently, I am entering my third year of postdoctoral training in Susan Wente's lab at Vanderbilt University. My graduate work was supervised by Stu Maxwell at North Carolina State University. Daniel is doing his first year of postdoctoral research in Erik Sontheimer's lab at Northwestern University. His graduate training was at the University of Alabama-Birmingham in Steve Hajduk's lab. Both Daniel and I have been involved in RNA research from the beginning of our scientific training, and we will work diligently to support our peers during their crucial early career stages.

As representatives, we will provide a network of activities. These activities will supplement the opportunities already available to us through the Society, including the Scaringe Award, poster awards, travel awards, the Career Mentoring Lunch, discounted memberships and, as of this year, the RNA Society Women in Science Dinner (see page 3). We will also have the opportunity to communicate the interests of students and postdocs directly to RNA Society officers. Representation will enable students and postdocs to more effectively become active members of the Society.

Our current plan for 2007 involves two new outreach programs to engage students and postdocs in the RNA field and to help them plan for the future. One is the creation of a database of local RNA clubs to be accessible on the RNA Society website. Local RNA clubs are a great way to promote networking among students, postdocs and established researchers within their geographic area. This website will initially list the name, contact person(s), meeting place and time, primary focus, and current website (if available) of each club. If there's interest, we aim to expand the site to allow local clubs to post upcoming events and special announcements in order to promote interactions both within and among research institutions. The goals of this collection are to assist individual clubs in communicating with their members and provide a resource for discovering RNA scientists within a specific region. Anyone involved in a local RNA club should e-mail Daniel at degolden@northwestern.edu with club details. For our second outreach program, we are working to create a one-on-one mentoring system to pair female students/postdocs with an established woman scientist. A recent report from The National Academies concluded that women are largely absent from more senior scientific positions when compared to the numbers of individuals who enter scientific training. We envision our active mentoring system as providing a structural network for the development of women scientists. If you are an established researcher interested in mentoring or a student or postdoc who would like an assigned mentor, please contact me via e-mail at beth.tran@vanderbilt.edu .

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In addition to the outreach efforts detailed above, Daniel and I will be creating student/postdoc-focused events at RNA 2007 in Madison, WI. First, Daniel and I will set up a table during one of the poster sessions where we will take suggestions and ideas on how the RNA Society can assist each of us through our career milestones. Second, we will host a happy hour following an evening session to allow students/postdocs to meet us and get to know one another. Finally, we will institute a casual mentoring workshop following sessions for postdocs to share their experiences with graduate students (future postdocs). This workshop is distinct from the Career Mentoring Lunch, as it will provide students with recent accounts of postdoc life.

Please contact either Daniel or myself if you have any additional suggestions. Our goal is to utilize the resources of the RNA Society to create opportunities for scientists-in-training. We look forward to hearing from students and postdocs directly.

Make sure to register for the 2007 meeting in Madison, WI by the February 26th deadline! To register, go to http://www.union.wisc.edu/rna/registration.html.

Diverse Aspects of a Faculty Job at a Primarily Undergraduate Institution (PUI)

Dave Kushner, Dickinson College

In the previous RNA Society Newsletter, I wrote a column about gaining teaching experience as preparation for applying for positions at PUIs such as small liberal-arts colleges. Of course, while high quality teaching is the main mission for faculty at such institutions, it is now commonplace and expected that quality research be accomplished with the assistance of undergraduate students. In addition, there is a need to contribute to department and college-wide service. In this column, I will provide an overview of teaching, research, and service portions of a faculty job typical of a PUI.

Teaching. Teaching is the most important part of a job at a PUI. The amount of teaching at a PUI varies, depending on the institution. It is most common to have a so-called "3-2" or "3-3" load at a PUI (the number indicating the number of courses, or sections of courses, being taught in a given semester), although the teaching load can be less ("2-2") or more ("4-4"). One challenge in calculating this number is that some PUIs give a full credit for teaching a lab section, others give a half-credit, and others give no credit. However, in terms of actual contact time, "3" often correlates to an upper-level course with 3 hours of lecture and 1 three-hour lab meeting per week, plus either an upper-level seminar course or a portion of an introductory course (lectures or labs) that also meets three hours a week. So while nine contact hours per week may not seem like a lot of time, PUI faculty do spend a great deal of time teaching (more than 80 one-hour class meetings in one semester, if lecturing in two different courses), and doing activities related to running their courses. These activities include, but are not limited to, designing and giving all the lectures, preparing for and running the lab associated with the course (which takes a *lot* more time and effort than preparing lectures), grading homework, exams, lab reports, term papers, and oral reports, meeting with students who need extra help (office hours are not sufficient to fulfill this need, since it is often impossible to schedule office hours when all students in your classes have that time free as well), and responding to e-mails from students (students consider e-mail to be an ideal way to ask their professors quick questions). All this means that the total amount of time per week spent working on teaching and running courses is generally several-fold more than the nine contact hours per week.

Research. At PUIs, it is now the norm that faculty are considered "teacher-scholars." In fact, it is often thought that research informs good teaching. Research is also an important way for students to gain exposure to "real" science. There are a few ways to expose students to research. One way is to incorporate research projects into the laboratory curriculum. This can be challenging, since this is a move away from "cookbook" laboratories and can be very time consuming for the faculty member,

but the benefits for the student and faculty member are significant. Students gain a better appreciation for the research process, gain practical experience that they can take with them into a research laboratory setting, and faculty can "test" ideas for projects that they want to pursue. The more "traditional" way of exposing students to research is in the actual research lab. At most PUIs, it is expected that faculty publish, and to do so with undergraduates as co-authors (quality is expected, though quantity is tempered based on the high teaching load). Most PUIs do not give teaching credit for having students pursue research projects in the laboratory, so extra time needs to be parceled out of the work week to train and mentor these students. There are some things to consider in this regard: (1) Design research projects for individual students that are small pieces of a larger project and have a few students work on parallel parts of the large project. (2) The pace of progress is slow, since on average, students will work in the lab about ten hours a week. As such, the faculty member can sometimes do small parts of the project to move things along (but consider that work will still go much more slowly than it did when you were a Postdoc focusing on research for 80 hours a week!). (3) Ensure that a new student in the lab has at least two afternoons a week free that you are also free, so that you have ample time to train the student (students can quickly become independent workers, if proper training is initially provided). (4) Methods that take a long time often need to be taught to student researchers in the evening or on weekends, when both faculty member and student have large blocks of free time. As noted above, once the initial time-investment has been made to help the student learn how to execute a method, the student can work on their own time when they need to do such work again. Ultimately, it is a challenge to have enough free time during the semesters to keep up with teaching and student research. Summers often feature student-faculty research as well, but summer (and winter) break can be a good time to catch up on reading literature and writing papers and grant proposals. Overall, it is very important to consider research aims that feature methods that undergraduate students are able to complete, as the students are the main drivers of research progress at a PUI.

Service. While a faculty member at a PUI will likely not be involved in service activities every day, they are also important. Although several PUIs have moved away from the notion that student advising is "service" (it is often considered part of teaching), it still takes time in the form of one-on-one meetings with students several times a semester, writing letters of recommendation for applications for graduate and professional schools, study abroad, summer research programs, etc. Biology is often one of the largest majors on any PUI campus, and a Biology department faculty member may advise upwards of 30 students at any given time (Chemistry faculty often have fewer advisees, since at most PUIs the number of Chemistry majors is significantly fewer). Department service often takes the form of job searches for Sabbatical-replacement hires (and, less frequently, tenure-track hires), curriculum design and review, planning the departmental seminar series, planning new equipment purchases, dealing with Biosafety, Radiation Safety, Animal Care and Use, etc. Most PUIs also feature college-wide committees that often have representation of faculty from the Humanities, Social Sciences, and Natural Sciences. As such, serving a two- or three-year term on one of these committees twice a decade is not unusual. Of note, such service commitments are usually scheduled as meetings at some point between 7:30am-5:30pm, which means that a few times a week, this is time that cannot be used for teaching or research.

Daily existence for a scientist, be it at a Research I university or a PUI, is always busy, and never fits neatly into the 9-5 "business" day. It is just that what needs to get accomplished each day at these two places vary greatly. At a PUI, teaching is always the number one priority, and generally happens daily during the semester – the trick is to find small pockets of time to work with students in the research lab to keep the research moving forward as one juggles the activities associated with teaching multiple classes and labs. Overall, if you are someone who enjoys hard work and likes spending a lot of time with undergraduate students in and out of the classroom and laboratory, a faculty position at a PUI definitely aligns with your interests.

Day in the Life of…. Diana Steel, D. Phil., J.D.

I was a post-doctoral fellow in Genetics when I decided to embark on a new career in intellectual property law. I was a molecular biologist and pathologist, receiving a D. Phil. in Pathology from Oxford University in 1989. After a three-year post-doctoral fellowship at Harvard Medical School, I moved to Dublin, Ireland to continue my research on post-transcriptional gene regulation at Trinity College. After 5 more years of bench research I realized that, although I loved the research and the science, I was not satisfied with the pace and rate of return on my work and did not look forward to the frustrations of grant proposals.

While applying for assistant professorships, lectureships, and staff scientist positions, I also began talking to patent attorneys and exploring a career in patent law. After responding to an anonymous advertisement in *Science* magazine, I was immediately invited for an interview at a large law firm in New York. Preferring my hometown of Boston, I used the law directory of Martindale-Hubbell (available in most libraries and also on-line) to find out which firms in Boston did biotechnology patent work and which hired technical specialists, since not all firms do so. I called many of the Boston firms to discuss job opportunities and applied for several positions. I was invited to interview at several firms and immediately got two offers to be a Technology Specialist, one in a general practice firm and one a patent boutique. I chose the general practice firm, believing it would provide a broader legal experience.

In my first year at the firm I took and passed the Patent Bar, which can be a grueling exam, and applied and was accepted to law schools. I worked for two large Boston law firms, who paid for most of my tuition and expenses for a day program at Boston College Law School. I was hired at one of the firms when I graduated from law school and I now work for Sullivan & Worcester LLC in Boston.

My practice not only involves drafting and prosecuting patent applications but also creating strategic plans for start-up patent portfolios, investigating and assessing the patent portfolios of target companies for investors, analyzing and predicting the outcome of high profile pharmaceutical litigations, patent litigation support, writing non-infringement and validity patent opinions, and licensing intellectual property.

Although I miss the bench, I am energized by the fast pace and have probably learned more science in more subject areas in my first 6 months as a patent agent than I did in 8 years doing research. Instead of focusing on the gene regulation of one protein, I am exposed to new, cutting edge technologies on an almost daily basis. I also love the opportunity to strategize with the heads of companies, particularly start-ups, and the best scientists in the world. My job requires strong writing skills and an ability to learn and write about technologies at a very fast pace. It also requires flexibility, because a client may need to have work done extremely quickly. For scientists looking for a rewarding career that involves a lot of writing and who are not opposed to yet another graduate degree, patent law provides an exciting career that keeps one very close to science and technology. dsteel@sandw.com

In the next issue of the Newsletter, I will describe the different career paths in patent law, so keep an eye on this space!

Travel Fellowships from Meetings Supported by RNA

Did you know that your membership dues help to 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 travel of students or postdoctoral fellows to RNA-related meeitings. It's up to the organizers to decide how they divide these funds to help the junior scientists (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. Also, the organizers are invited to write a summary (~500 words) of the meeting to be included in the Society Newsletter. This is an ideal opportunity to promote your favorite area of research.

If you are a meeting organizer and a member of the RNA Society interested in obtaining support for your RNA-related meeting, please contact Evelyn Jabri. (ejabri@gmail.com) and provide the information indicated above.

Upcoming Meetings Supported by The RNA Society

FEBS Workshop on : DNA and RNA modification enzymes: Structure, Mechanism, Function and Evolution to be held at the Centre Leo Langevin in Aussoie (Savoie), France next September 11-16, 2007

The purpose of the Workshop (100 participants) is to bring together Structural Enzymologists and Molecular Biologists working on enzymes involved in post-replicating or post-transcriptional covalent modifications of DNA and RNA. Recent developments in molecular and structural biology, indeed reveal the existence of an increasing number of obvious interconnectivities between the metabolism of these two types nucleic acids. By bringing together Internationally recognized scientists, young PI and post-doctoral researchers involved in the field of DNA and RNA research, as well as strongly motivated young PhD students wanting to be introduced in the field, we will discuss and compare various aspects of the structure, the mechanism and the function of the different families of DNA/RNA modification-editing enzymes and their possible interconnections/ similarities within an evolutionary framework. For more information, consult: Website: http://genesilico.pl/DNARNAmod2007/

Application on line can be done RIGHT NOW at the WEB site : http://genesilico.pl/DNARNAmod2007/application_form <http://genesilico.pl/DNARNAmod2007/application_form> . Ultimate dead line for application is April 15, 2007 (May 15 for the abstract submission once the application is accepted), but sooner is best, since only 80 applications will be accepted out of the many applications we are starting to receive. The Organizing Committee is composed of: Henri Grosjean, Saulius Klimasauskas and Janusz Bujnicki. For more personal contacts, the addresses can be found on our web site.

Upcoming meetings Sponsored by the RNA Society (cont.)

Western Canada RNA Club (Western RiboClub) sponsors the RiboWest meeting:

Organizing Committee:
Stephen Rader (rader@unbc.ca)
Chow Lee (leec@unbc.ca)
Andrea Gorrell (gorrell@unbc.ca)

Web Site for the Western RiboClub (includes information about RiboWest):
http://www.bioinformatics.ubc.ca/wiki/ribowest/index.php/Main_Page

Listserv to receive information about RiboWest:
ribolist@unbc.ca
(send an email to majordomo@unbc.ca with "SUBSCRIBE ribolist" and "END"
in the body of the message)

RiboWest 2007 will be held on July 30 and 31st, 2007, at the U. of Northern B.C. in Prince George. The keynote address will be given by Sidney Altman. Registration will open in March 2007. One of the major strengths of the meeting, other than providing an opportunity for junior scientists to present their results in a supportive environment, is that it brings together the strong computational and experimental RNA communities of BC and Alberta. We have found the overlap to be particularly stimulating, and both groups have been pleasantly surprised at how useful it is to talk to the other.

Ribosomes: Form and Function

An international conference on all aspects of ribosome structure and function will take place on Cape Cod, MA, June 3-8, 2007. Those interested in participating can find further information on-line at http://www.ribosomes2007.org/.

Each session of the conference will focus on a specific facet of ribosome function, such as initiation of protein synthesis, decoding, peptide bond formation, termination, secretion, assembly, and translational regulation. Genetic, biochemical and structural presentations will be interleaved in every session to highlight the connections between the kinds of information obtained by these different approaches. Both prokaryotic and eukaryotic systems will be discussed.

The conference will take place at the Sea Crest, a beachfront resort and conference center on Cape Cod--a classic New England vacation area. Cape Cod is conveniently served by international airports in Boston (Logan) and Providence (T. F. Green), each of which is roughly an hour and a half away by bus or car. The resort, as well as nearby parks and beaches, offer abundant recreational opportunities, and the world-renowned laboratories of the Marine Biological Laboratory and the Woods Hole Oceanographic Institute are only a few miles away. For more information, visit the web sites of the Sea Crest Resort or the Cape Cod Chamber of Commerce.

The ASBMB 2007 Annual Meeting, held in conjunction with *Experimental Biology*, runs from April 28 - May 2, 2007 in Washington, DC. The **RNA Theme Organize**r is Kristen W. Lynch, University of Texas Southwestern Medical School. Four sessions, held on consecutive days will include:

Molecular Recognition and Enzymology of RNA Chair: Anna Marie Pyle,
RNA-Based Gene Regulation Chair: Kristen W. Lynch,
Small RNAs Chair: Witold Filipowicz,
RNA Modification: Mechanism and Function Chair: Robert Reenan,

To register and see a detailed list of invited speakers, times and location of the Thematic Discussions which follow some of the above session and provide additional opportunities to network and continue discussions, go to : http://www.asbmb.org/ASBMB/site.nsf/web/A822CEF502DE9513852571B1005CE7B6?OpenDocument.

The American Chemical Society will host its 233rd National Meeting & Exposition March 25-29, 2007 in Chicago, IL. The meeting will include a session with a focus on **Biophysics of RNA: RNA Structure** on Sunday morning organized by J. D. Puglisi and J. R. Williamson. G. A. Voth will function as Program Chair. Sessions include :

RNA Structure, Chair: Adrian Ferre-D'Amare
RNA Dynamics, Chair: X. Zhuang
RNA-Protein Complexes, Chair: Andrew Feig
Catalytic RNA, Chair: Phil Bevilacqua
RNA Folding, Chair: Tao Pan
Structure & Dynamics, Chair: Sam Butcher

To register and see a detailed list of invited speakers, see http://www.chemistry.org/portal/a/c/s/1/acsdisplay.html?DOC=meetings%5cchicago2007%5chome.html

The Second Microsymposium on Small RNAs will take place in Vienna at the Institute of Molecular Biotechnology of the Austrian Academy of Sciences, IMBA, from May 21-23 2007. Session will focus on RNAi and microRNAs in different model systems, will include algorithms in RNAi and microRNA target prediction and will feature talks from academic speakers intercalated with short talks by companies. For more information contact Javier Martinez, Javier.Martinez@imba.oeaw.ac.at

Past Meetings supported by the RNA Society

The **Microsymposium on Small RNAs** took place at the Institute of Molecular Biotechnology of the Austrian Academy of Sciences, IMBA, from May 29th-30th. The aim of the meeting was to nucleate recently established European group leaders working in the field of RNA silencing.

The Microsymposium started with the EMBO Lecture, given by Dr. Steve Cohen, who spoke to a full-packed audience. Steve gave a comprehensive lecture, describing how microRNAs regulate genome expression. Series of short talks followed addressing the molecular mechanisms driving RNA silencing, function of small RNAs in viruses, plants, *C.elegans*, zebrafish and humans, and new developments in the field of bioinformatics regarding the prediction of small RNAs and their targets in the genome. Several companies sponsored the Microsymposium, which enabled them to present their latest research and products. Attendance was free, and we were glad to see so many students and colleagues from various institutions actively participating in discussions.

We are looking forward to an enhanced reload of the Microsymposium in May'2007! Hope to see you there!

From left to right: Kazufumi Mochizuki (IMBA-Vienna), Ramesh Pillai (FMI-Basel), Gunter Meister (MPI-Martinsried), Matt Poy (Rockefeller University-New York), Sebastian Pfeffer (CNRS-Strasbourg), Margit Stadler (Sigma-Proligo), Steve Cohen (EMBL-Heidelberg), Mihaela Zavolan (Biozentrum-Basel), Javier Martinez (IMBA), Antonio Giraldez (Harvard University-Boston), Heiko Manninga (MPI-Gottingen), Helge Grosshans (FMI), Marc Rehmsmeier (CeBiTec-Bielefeld), Stephanie Urschel (Dharmacon) and Peter Roberts (Exiqon).

The Translational Control and Non-Coding RNA Meeting was held at the beginning of November 2006 in Nove Hrady, Czech Republic and was organized by Martin Pospisek and Leos Valasek.

Participants livened up the Napoleonic Chateau built by the Buquoy family at the beginning of the 19th century, nowadays housing the Conference Centre, the Institute of Physical Biology and the Institute of Landscape Ecology of the Academy of Sciences of the Czech Republic.

The meeting was opened by two keynote lectures presented by Alan G. Hinnebusch from NICHD, Bethesda and Matthias Hentze from EMBL, Heidelberg and followed by seven sessions dedicated to cap-independent translation initiation, role of microRNAs in translational control, translational control during stress, translational control in development, general translation and translational control in prokaryotes and was concluded by the section focused on application of genome-wide analysis and bioinformatics. In addition to the keynote lectures, the meeting hosted 29 speakers including 5 plenary lecturers and more than 20 poster presentations. The remaining time was filled with informal discussions during coffee breaks and evening open bars. There were also two guided tours organized, one brought interested participants to the medieval Nove Hrady Castle and introduced them to the history of the meeting place, the other provided an opportunity to visit the nearby renaissance pearl, Trebon and its world renowned brewery, Regent.

The meeting was generously supported by two scientific societies – the Federation of European Microbiological Societies and the RNA Society – both of which helped to make the meeting more affordable for students and young post-docs from around the world. These funds allowed the registration fee to be waived for 15 participants.

As judged by the post-meeting reactions of most of the participants, four days spent in South Bohemia provided not only an opportunity to gain a great deal of new and exciting knowledge, it also sparked many off-the-stage scientific discussions and cross-field encounters in a relaxed atmosphere of the quiet small town environment.

Upper photo Napoleonic Chateau built by the Buquoy family, lower photo Nove Hrady Monastery

Employment and Careers

The RNA Society is pleased to make the 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.

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

Current Listings

Postdoctoral positions

Position available in Department of Biochemistry and Biophysics
University of Rochester Medical Center, Rochester, New York
United States

A postdoctoral position is available to study either the mechanism by which termination (nonsense) codons elicit **nonsense-mediated mRNA decay (NMD)** or a relatively new pathway called **Staufen1-mediated mRNA decay (SMD)**, both in mammalian cells.
NMD is a splicing-dependent and translation-dependent pathway that targets not only disease-associated but also naturally occurring transcripts (for recent reviews from our lab, see Maquat, 2004, ***Nat. Rev. Mol. Cell Biol*** 5:89-99; Maquat, 2004, ***Curr. Genomics*** 5:174-190), many of which are mistakes made during alternative splicing (Pan et al., 2006, ***Genes & Dev.*** 2006 20:153-8). Currently, we are interested in further characterizing the pioneer round of translation, during which nonsense codon recognition leads to NMD (Ishigaki, Li and Maquat, 2001 ***Cell*** 106:607-617; Lejeune et al., 2002, ***EMBO J.*** 21:3536-3545; Chiu, Lejeune, Ranganathan and Maquat, 2004, ***Genes & Dev.*** 18:645-754; Lejeune, Ranganathan and Maquat, 2004, ***Nat. Struct. Mol. Biol.*** 11:992-1000; Hosoda, Lejeune and Maquat, 2006, ***Mol. Cell. Biol.*** 26:3085-3097). We have found that CBP80 promotes NMD by promoting the interaction between the Upf1 and Upf2 NMD factors (Hosoda, Kim, Lejeune and Maquat, 2005, ***Nat. Struct. Mol. Biol.*** 12:893-901). We are particularly interested in understanding additional changes in mRNP structure that occur during the pioneer round of translation and its remodeling to the steady-state initiation complex, eIF4E-bound mRNA.

Our studies of SMD reveal that Staufen1, which is a double-stranded RNA binding protein, recruits the NMD factor Upf1 to certain mRNA 3' untranslated regions so as to elicit SMD in a translation-dependent fashion (Kim, Furic, DesGroseillers and Maquat, 2005, ***Cell*** 120:195-208). Using microarray analyses, we and the DesGroseillers lab have identified a number of mRNAs that are naturally down-regulated by SMD. Future studies aim to elucidate how mammalian cells utilize SMD to regulate gene expression. Included in these studies are identifying mRNA sequences that bind Staufen1, characterizing the Staufen1-containing mRNA binding complex, defining the mRNP rearrangements that occur during SMD, and characterizing the physiological significance of SMD.
Successful candidates will join a well-equipped group of interactive lab members with diverse backgrounds and broad expertise in newly remodeled labs. The University of Rochester is unique for its sizeable community of RNA researchers.

Contact:
Dr. Lynne E. Maquat
Tel: 585-273-5640 Fax: 585-271-2683
E-Mail: Lynne_Maquat@urmc.rochester.edu

Position available in Department of Biochemistry and Molecular Biology of the University of Georgia , Athens, USA
Position posted on Saturday, January 20, 2007

We are looking for a postdoctoral researcher interested in the regulation of telomerase trafficking and function in cancer cells. Telomerase is a non-coding RNA-protein complex with an intricate pattern of cell-cycle regulation and a key role in cancer. The project is funded by the National Cancer Institute (NIH). Strong scientific thinking and communication skills, and experience in protein or RNA biochemistry, molecular biology or human cell biology are desired. Athens, Georgia is a beautiful, active, comfortable place to live, near the Blue Ridge and Smoky Mountains and the Atlantic coast as well as Atlanta. For more information about our group and research interests, please see our web site (http://bmbiris.bmb.uga.edu/rterns/index.html) or contact us. To apply, please send your CV to us at mterns@bmb.uga.edu.
Contact :
Dr Michael and Becky Terns
Tel : 706-542-1703
Email : mterns@bmb.uga.edu

Position available in Dept of Physiology of the University of Manitoba , Winnipeg, Canada
Position posted on Friday, December 15, 2006

To study cell signal regulation of alternative splicing of pre-mRNAs in neurons and endocrine cells supported by CIHR and NCIC. Individuals graduating or within 1 year after Ph.D., with strong motivations for research and backgrounds in molecular/cell biology, biochemistry, or genetics are encouraged to apply. Experience with RNA will be a plus. Salary will be in CIHR scale starting from $35,000. Once accepted, the earliest start date is February 1, 2007. The initial appointment is for one year but is extendable.
Contact :
Dr Jiuyong Xie
Tel : 204 9757774
Fax : 204 7893934
Email : xiej@cc.umanitoba.ca

Position available in Dept of Ecology and Evolutionary Biology of the Princeton University , Princeton, United States
Position posted on Tuesday, November 07, 2006
DNA Recombination, Rearrangement and Small RNAs

A postdoctoral position is available in the Department of Ecology and Evolutionary Biology to study the mechanism of scrambled gene and genome rearrangements in ciliates, particularly the role of noncoding RNAs or epigenetic factors, using experimental tools. Strong experimental training and experience from the Ph.D., ability to work independently and creatively, and strong research and written/oral communication skills are necessary.

The initial appointment is for one year, and can be extended, upon mutual agreement.
Send CV and names and email addresses of three references to:
Laura Landweber
Dept. of Ecology & Evolutionary Biology
Princeton University, Princeton, NJ 08544.
http://www.princeton.edu/~lfl
Princeton University is an equal opportunity/affirmative action employer.
For information about applying to Princeton, please link to http://web.princeton.edu/sites/dof/ApplicantsInfo.htm.

Contact : Dr Laura Landweber
Tel : 1-609-258-1947
Fax : 1-609-258-7892 Email : lfl@princeton.edu

Position available in Molecular Biology and Microbiology of the Tufts University School of Medicine , Boston, United States Position posted on Wednesday, November 01, 2006

Responsible for multiple projects to study eukaryotic gene expression using the model organism, Saccharomyces cerevisiae. Will conduct genetic analyses of mutations in genes affecting transcription & mRNA 3' end processing and obtain biochemical data to understand the molecular function of the proteins under study. Ph.D. in biochemistry or related field is required. Must know modern techniques to study gene expression and analyze protein and nucleic acids. Position is available now. To apply, please send resume to Dr. Claire Moore, Molecular Biology & Microbiology, Tufts Univ. School of Medicine, 136 Harrison Ave., Boston, MA 02111, claire.moore@tufts.edu.

Contact :
Dr Claire Moore
Tel : 617-636-6935
Fax : 617-636-0337
Email : claire.moore@tufts.edu

Position available in Dept. of Biochemistry and Molecular Biology of the Johns Hopkins University , Baltimore, United States Position posted on Wednesday, November 01, 2006

A postdoctoral or research assistant position to study the structural biology of pre-mRNA splicing is available in The Department of Biochemistry and Biophysics at the University of Rochester. This NIH funded position supports a project to understand the structural and biophysical basis for how pre-mRNA splicing factors recognize splice sites in normal and diseased cells.

The environment for biophysics and structural biology at the school is outstanding, with instruments for X-ray crystallography, calorimetry, circular dichroism, fluorescence, dynamic light scattering, and surface plasmon resonance. Moreover, the city of Rochester offers a pleasant cultural setting for work and home life.

The ideal applicants will have a recent PhD or MD degree, a strong academic record, research experience in the biological, chemical, or physical sciences, and fluent English language skills. Previous experience with pre-mRNA splicing or biophysics is preferred. Informal inquiries are welcome. To apply, please e-mail CV and the names and contact information of three references.

Contact :
Dr Clara L. Kielkopf
Fax: 585-271-2683
clara_kielkopf@urmc.rochester.edu

Position available in Dept of Chemistry of the University at Buffalo , Buffalo, United States
Position posted on Tuesday, October 17, 2006

A postdoctoral position is immediately available in the area of RNA bioorganic chemistry. Research is focused on finding a chemical code for recognition of RNA. Chemical microarray and other state-of-the-art techniques will be used in these endeavors. Sucessful applicants will have some skills in chemical synthesis and should be well versed in essential RNA molecular biology techniques (electrophoresis, RT-PCR, and RNA transcription). Funding for the position for one year is guaranteed with the possibility of an additional two years provided sufficient research progress is made on the project.

Contact :
Dr Matthew Disney
Tel : 716-645-6800 ext 2170
Email : mddisney@buffalo.edu

Position available in Dept of Biochemistry at the University of Missouri-Columbia, Columbia, United States
Position posted on Thursday, October 05, 2006

Postdoctoral Fellowship - College Science Education
University of Missouri-Columbia

MU invites applicants for a two-year postdoctoral position supported by the CUES (Connecting Undergraduates to the Enterprise of Science) project funded by an NSF CCLI grant. The aim of CUES is to develop user-friendly ways to incorporate inquiry into undergraduate laboratories by remodeling existing exercises into the form of the scientific literature.

CUES fellows will help lead faculty development workshops, evaluate the materials developed, and assess their effectiveness in diverse institutional settings. Ideal candidates will have a doctoral degree in a science field or science education, good writing and communications skills, and an interest in a career that employs research methodologies in undergraduate science teaching.

Please send a curriculum vitae, list of publications and the names of three referees to: Frank Schmidt, Professor of Biochemistry (schmidtf@missouri.edu), or Sandra Abell, Curators' Professor of Science Education (abells@missouri.edu). Evaluation of candidates will begin immediately and continue until the positions are filled.

Contact :
Dr Frank Schmidt
Tel : 573-882-5668
Fax : 573-884-4597
Email : schmidtf@missouri.edu

Position available in Dept Molecular Microbiology & Immunology and Dept Biochemistry of the University of Missouri , Columbia, United States Position posted on Tuesday, October 17, 2006

Postdoctoral or Senior Research Scientist level position available immediately at the University of Missouri School of Medicine in basic and applied RNA research. This position will support a NASA-funded project to develop ribozymes for use in metabolic engineering and gene therapy and to advance RNA World theories. This project explores the nature and plausibility of an RNA-catalyzed metabolism. Core areas of interest include identifying new ribozymes for metabolically relevant biochemical reactions (such as protein and small molecule phosphorylation, or oxidation/reduction), determining how ribozyme structures contribute to catalytic mechanisms and evolution, and using artificial ribozymes to modulate intracellular metabolism.

The ideal candidate(s) will have a recent Ph.D. in Molecular Biology or Biochemistry and laboratory experience analyzing RNA structure, ribozyme mechanism and evolution, or equivalent insight from related fields. S/he will also be creative, effective and bold, and will have demonstrated a capacity to learn new things and to work well with others. Salary is highly competitive, in addition to the affordable, quality living environment of central Missouri.

To apply, please send CV, a statement of how you anticipate contributing to the indicated research enterprise, and the names and contact information of 3 references to burkedh@missouri.edu. Informal inquiries are also welcome.
University of Missouri School of Medicine
Department of Molecular Microbiology & Immunology
Life Sciences Center, 1201 Rollins St.
Columbia, MO 65211-7310 USA

Contact :
Dr Donald H. Burke
Tel : 573-884-1316
Email : burkedh@missouri.edu

Position available in Dept Molecular Microbiology & Immunology and Dept Biochemistry of the University of Missouri , Columbia, United States Position posted on Tuesday, October 17, 2006

Postdoctoral or Senior Research Scientist level position available immediately at the University of Missouri School of Medicine in basic and applied RNA research. Aptamers to various HIV-1 and human proteins have been shown to bind with high affinity and specificity, and to be highly effective at blocking viral infection. This position will support an NIH-funded project to develop RNA and ssDNA aptamers to treat, prevent and detect HIV-1 infections. Core areas of interests include biophysical analysis of aptamer-protein interactions, impact of aptamer expression on cell biology, developing aptamers for microbicide and gene therapy strategies, and evaluating and overcoming aptamer-resistant HIV-1.

The ideal candidate(s) will have a recent Ph.D. in Molecular Biology or Biochemistry and laboratory experience working with RNA-protein interactions, virology, or equivalent insight from related fields. S/he will also be creative, effective and bold, and will have demonstrated a capacity to learn new things and to work well with others. Salary is highly competitive, in addition to the affordable, quality living environment of central Missouri.

To apply, please send CV, a statement of how you anticipate contributing to the indicated research enterprise, and the names and contact information of 3 references to burkedh@Missouri.edu. Informal inquiries are also welcome.
University of Missouri School of Medicine
Department of Molecular Microbiology & Immunology
Life Sciences Center, 1201 Rollins St.
Columbia, MO 65211-7310 USA.

Contact :
Dr Donald H. Burke
Tel : 573-884-1316
Email : burkedh@missouri.edu

Position available in Dept of Molecular Genetics and Cell Biology of the University of Chicago , Chicago, United States
Position posted on Thursday, September 21, 2006

An NIH-funded postdoctoral position is now available in the laboratory of Jon Staley to study the mechanism by which the spliceosome promotes pre-mRNA splicing. In eukaryotes pre-mRNA splicing is an essential step in gene expression and provides an important target for regulating gene expression. Pre-mRNA splicing is catalyzed by the spliceosome, a macromolecular machine composed of both protein and RNA parts. The spliceosome must cleave splice sites precisely or risk catastrophic consequences. Our long-term goal is to understand the mechanism of the spliceosome. Currently, we are focused on understanding the functions of several DEAD box ATPases, an essential GTPase and the dynamic RNA components of the spliceosome. We investigate the spliceosome in the model organism budding yeast to allow both biochemical and genetic approaches. Recent exciting findings include our discovery of a DEAD-box ATPase that represses splicing at incorrect splice sites and our discovery of a GTPase that regulates the activation and disassembly of the spliceosome. The postdoctoral fellow would have the opportunity to pursue these exciting findings. In addition to pursuing these opportunities, the postdoctoral fellow would be encouraged to develop a project of their own design in the area of molecular mechanisms of pre-mRNA splicing. The candidate should have a PhD in the biological or physical sciences. Ideally, a candidate would have experience working with RNA and would have training in biochemistry, molecular biology and/or genetics. However, strong candidates without such experience are encouraged to apply. The postdoctoral position is funded for three to five years. Candidates should email a cover letter, a CV and contact information for three references to Jon Staley (jstaley@uchicago.edu). The University of Chicago is an Affirmative Action/Equal Opportunity Employer.

Contact :
Dr Jon Staley
Tel : 773-955-8582
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Email : jstaley@uchicago.edu

Position available in School of Biological Sciences of the University of Missouri , Kansas City, United States
Position posted on Monday, September 04, 2006

Postdoctoral positions are available starting February 2007 in research groups of Dmitry Belostotsky and Julia Chekanova at the University of Missouri (Kansas City), studying (i) mRNA processing and control of mRNA release from the site of transcription in yeast, and (ii) posttranscriptional control of gene expression in Arabidopsis. Selected publications: EMBO J in press, Nature in review (August 2006), Trends Plant Sci 10: 347-353 (2005), Mol Cell 16:498-500 (2004), RNA 10:1200-1214, (2004) & 9:1476-1490 (2003), Genetics 163:311-319 (2003), Curr Biol 11:1207-1214 (2001).

Successful candidates will have appropriate degree and solid background in molecular biology and/or genetics, biochemistry, cell biology, as evidenced by a strong publication record in international journals. Experience in RNA biology and/or bioinformatics is a plus.

Kansas City is a major cosmopolitan center featuring dynamic cultural environment, vibrant music scene, and exciting opportunities for recreational activities. Dubbed "Paris of the plains" (www.cnn.com/2006/travel/destinations/06/08/kansas.city/index.html), it is ranked within top 6 places to live in United States. UMKC School of Biological Sciences (AA/EO employer) is located next to the Stowers Institute, offering ample opportunities for collaborations.

Contact :
Dr Dmitry Belostotsky
Tel : 518 442 4368
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- Reduced registration fees for the annual meeting of the Society
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