A big score for *RNA*

MICHELLE L. HASTINGS
Department of Cell Biology and Anatomy, Chicago Medical School, Rosalind Franklin University, North Chicago, Illinois 60064, USA

The 20th Anniversary of the journal *RNA*, coincidentally, also marks the score of years that I have been studying the RNA molecule. Thus, my perspective on the journal over this time is closely tied to my own professional journey, beginning as a graduate student and continuing today.

I must admit, as a fledgling graduate student, I did not appreciate the unique character and dynamics of the RNA field, nor did I anticipate the positive impact that the Society and the just-being-formed journal would have on RNA research and on me professionally. Twenty years ago, I took for granted the camaraderie of the people that were researching the RNA molecule; I did not know then how much I would come to appreciate the intelligence, creativity, and general supportiveness of the scientists in this field. Alas, I had yet to realize the vital role the journal would have in my career: a tool to keep me connected not only to the latest developments in my sub-specialty of pre-mRNA splicing and microRNAs, but also to discoveries in all areas of RNA research.

That first issue of *RNA* holds a special place on my bookshelf. The letter in that issue from the RNA Society leadership offers insight into generally held views of RNA biology in 1995. In particular, I read, "Some of our colleagues have hinted that this appears to constitute a narrow base for a new Society." Perhaps the study of RNA was considered "over" at the time? After all, catalytic RNAs and splicing had already been discovered and awarded the Nobel prize and the structures of RNA polymerase and the ribosome were being hammered out. What exciting stories were left for RNA? Indeed, during my search for a post-doctoral position, a colleague was perplexed that I was considering RNA labs, forecasting that "the only thing left to do in RNA research is fill in the gaps."

Though RNA researchers may have been convinced of the importance of RNA, there was arguably little breadth of interest in our field from the greater scientific community. Who could have known (except the RNA explorers!) that within a few short years a renaissance would occur that would establish RNA biology as a major point of cellular control? Science is rethinking RNA and the concept of genes in general as more evidence points to the centrality of RNA in the biological world. We now know that most of the human genome is transcribed into RNA and it seems, for now at least, very little of the RNA produces proteins. So, what is all this RNA doing? The coming years of work and thousands of *RNA* manuscripts will lead to some of the answers as well as to more fascinating questions.

And that is what I look forward to most in the coming years: the discovery of those "game-changers" that turn new information into new unknowns. For example, I cannot forget how dramatically the RNA field was altered by the sudden discovery and emergence of RNA interference and microRNAs. The journal, too, rapidly embraced this new direction. Soon these small noncoding, functional RNAs took over the journal space, with most of the currently top-cited research articles being dedicated to this topic. The impact microRNAs and the RNA interference pathway have had on the development of the *RNA* journal and on the field of RNA in general is undeniable. Yet, like the proverbial peeling of the onion, one layer of discovery leads to further mysteries still surrounding this pathway and the extent to which it controls cellular processes.

The next 20 years of RNA research will undoubtedly solve and also reveal new mysteries of the molecule. I anticipate, given the prominence and extent of advances in our understanding of RNA as a functional molecule, that the mechanisms of RNA manipulation, cleavage, and processing will offer many yet undiscovered findings. Whether there are additional classes of ribonucleases or other reactions that may mediate RNA function remains to be seen. I am also curious about the potential of RNA as an intra- and intercellular signaling molecule—what my computer scientist colleague refers to as the "organismal internet." I am equally eager to see what is found upon further deciphering of the code that directs RNA processing, and how this information may be harnessed to understand and treat disease. Related to this, the extent to which RNA can be targeted to control gene expression is ripe for exploration. RNA targeting via, for example, RNAi approaches, sponges, mimics, or antisense oligonucleotides has tremendous potential to alter gene expression for research and practical applications. Though obviously I cannot know what the future holds for RNA research, I am certain that when discoveries are made, the

Corresponding author: michelle.hastings@rosalindfranklin.edu
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RNA journal will be a repository for a bulk of the papers, again supporting and forwarding research in our RNA world.

What do I consider to be a focus goal for journal administration in the short term? The journal must incorporate more diversity on its Editorial Board. For instance, the RNA field boasts scores of successful women whose research the journal has supported over the past 20 years. Yet our journal has a considerably lower percentage of women on its Editorial Board compared to the percentage of woman members of the RNA Society. I look for the gender ratio to improve so we can proudly demonstrate as a field and as a journal that equitable representation is an imperative, not a choice, in the Millenium.

Last, but importantly, let us celebrate the person at the helm of our journal. Tim Nilsen has been a leader in the RNA field and has labored diligently to keep it strong. We are indebted to him for his stewardship and service. Due to his painstaking attention to detail, the science published in the *RNA* journal is top-notch. Many of us joke that it is harder to get a manuscript into *RNA* than into other less specialized journals. Thanks, Tim, for keeping our standards high and our science rigorous.