INTRODUCTION OF ARMAND KURIS, RECIPIENT OF THE 2010 CLARK P. READ MENTOR AWARD

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It is a pleasure and an honor to introduce Armand Kuris as the 2010 recipient of the Clark P. Read Mentor Award. This award honors extraordinary leadership in training young scientists and fledging budding parasitologists. It targets individuals who develop strong parasitology research and education at their institution. Armand has spent over 35 years at UC Santa Barbara passionately doing both.

Armand grew up in the Bronx, New York, but cold winters and an appetite for adventure drove him south to Tulane University, where he found himself on the road in the South, seining in rivers and bayous. As an undergrad mentored by the ichthyologist Royal Suttkus he gained a deep knowledge of fish biology and contributed extensively to the fish collection at Tulane. He was exposed to a parasitology course at Tulane taught by the Panamanian parasitologist Frank Sogandares but decided that fish was where it was at. Seeking more adventure after graduating in the 1960s, he moved west to UC Berkeley, where he set out to study fish taxonomy. Nevertheless, parasitology crept back into his life, and he completed his Master's thesis on fish myxozoans. At UC Berkeley he met Cadet Hand, an invertebrate zoologist, who became Armand's Ph.D. advisor, mentor, and academic father. Armand developed a strong background in zoology, ecology, and evolution and fused this with his growing interest in parasitology (fostered by John Simmons). In 1968, he began to work on the ecology of parasites in shore crabs for his Ph.D. thesis, and ever since, he has been hooked. However, Armand wanted to become a "real parasitologist," so the day he submitted his thesis, he treated himself to Chinese food for lunch and drove across the Bay to San Francisco, where he started his postdoc at the UCSF Medical Center working on schistosomiasis with Don Heynemen and Lie Kian-Joe. He rounded off his postdoctoral experience at the University of Michigan discussing ecology with Steve Hubbell and David Tilman, again reinforcing his broad intellectual background. Armand's exposure to different mentors and various disciplines undoubtedly shaped his mentoring style: pushing creative limits and encouraging "hard thinking" while never micromanaging.

After short stints as an assistant professor at the University of Florida and University of North Carolina, he again headed west, where he joined the faculty at UC Santa Barbara in 1975 and never left. At UCSB, Armand has passionately mentored multiple graduate students and has exposed many undergraduates to parasitology (of whom many have gone on to study parasitology in graduate school). He has mentored 17 Ph.D. students, 10 Master's students, and 10 postdocs. Armand has taught 10 courses at UCSB, 3 of which are parasitology courses. His introductory parasitology course is one of the most popular courses among upper division biology students. Over the years, he

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has taught about 7,000 students, of whom about one-third have taken his parasitology course. Armand has received several awards for teaching and research, including the Best Teacher in Sciences at UCSB in 1999, UCSB Chancellor's Award for Undergraduate Research Mentorship in 2006, the Donald P. Abbott Memorial Lecture from Stanford University in 2009, and the Ben Gurion Medal (also awarded to Linus Pauling), and he was the 2009 ASP Eminent Parasitologist. However, it is the Clark P. Read Mentor Award that highlights his long-term commitment to his students by transmitting his passion for parasites.

Since both of us graduated from UCSB a while ago, we decided to investigate if Armand's teaching had slipped over the years. We consulted RateMyProfessors.com, which confirmed his teaching is as strong as ever, particularly in parasitology. Upon our last inquiry, while Armand is not an easy teacher (ranked 2.6/5), his overall quality, helpfulness, and clarity each raked in a whopping score of 4.5/5. Perhaps most impressively he also achieved the prized "red hot chili pepper" for the hotness category. Armand's teaching is renowned at UCSB, and all the students' comments posted on the "rate my professors" website provide extremely positive praise. For example, one of our favorite quotes is "Armand is one cool professor. He makes learning fun and devoted to helping students. He even made me interested in something as sicko as parasatology (sic). And he is good looking!!!" (sic).

At UCSB, Armand served for 12 years as Associate Provost for the College of Creative Studies (CCS). This is essentially a graduate school for undergraduates, where participating in research is at the core of the undergraduate curriculum. He developed the biology major for the CCS program, which has had about 340 graduates since 1968, including a Nobelist and a MacArthur Fellow.

The first day of winter quarter at UCSB begins with 60something Dr. Kuris strolling up to the front of a classroom seating 80-100 students who have all heard the rumors from their classmates telling them that they must take EEMB 111, Introduction to Parasitology. Armand pulls out an extendable car antenna (his pointer) and whaps it against the screen and pledges that all students taking this class will gain, at the very least, the ability to substantially improve their party conversation, declaring, of course, that parasites are obviously the coolest topic one can talk about. He launches into schistosomes as the first topic and uses what he calls "the hook," a gripping example of the devastating disease caused by these parasites. Armand has built his parasitology course over the last 30+ years at UCSB and has taken advantage of the coastal location that offers a smorgasbord of marine hosts filled with parasites. As a five-time TA for the parasitology course, I (VJM) learned so much about observing live parasites, from turbellarians in sea cucumbers, mesozoans in octopus kidneys, monogeneans on fish gills, tapeworms in shark intestines, larval acanthocephalans in crabs, to, of course, larval trematodes in local horn snails. Armand also kept the life cycle of

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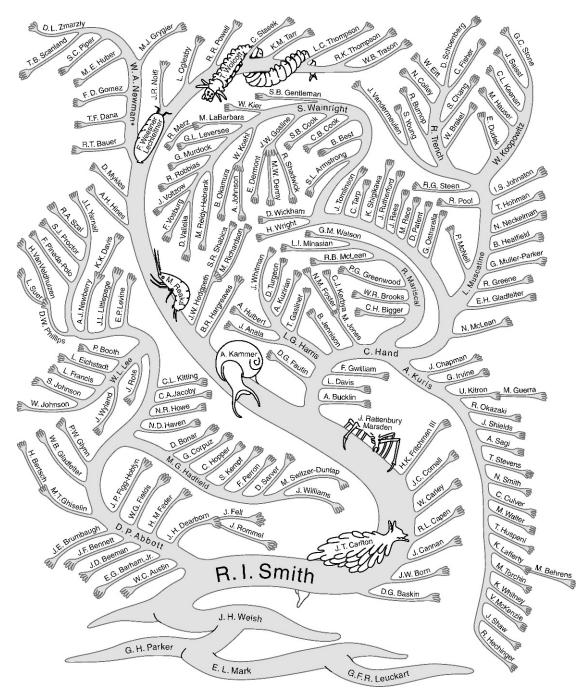


FIGURE 1. Armand Kuris's academic family tree. Modified from Carlton et al. (1989).

Schistosoma mansoni running for students to examine, an experience most will never forget. Students also observe live trypanosomes (Trypanosoma lewisi) in rats and witness the microcentrifuged blood dancing with hemoflagellates. Students attend a 3-hour lab twice a week and marvel at all the live parasites and incredible preserved specimens. We would venture a bet that no other parasitology course in the country has a greater diversity of live parasites to observe than does Armand's course. The TAs for the lab write and develop the lab practical exams, so Armand regularly joins the students and takes the test himself, in part to keep his test-taking skills sharp, but also to guide his TAs on how to make a good exam and to evaluate the difficulty of the exam. Watching him interact with students on their level and commiserate about being stressed out taking the exam shows exactly how young at heart Armand is and how he loves connecting with students. He brings a solid human element to his teaching and truly respects his students. We will always appreciate the dedication that Armand brings to creating a truly amazing parasitology course year after year.

Armand has a talent for attracting a diversity of students, and we are not quite sure how he does it. While we were grad students at UCSB, Armand's lab included undergrads, graduate students, and postdocs with ethnic backgrounds from Mexico, Colombia, Venezuela, Vietnam, Indonesia, Lebanon, Israel, China, Japan, India, Denmark, Spain, and the Czech Republic. I (VJM) applied to join Armand's lab as a Ph.D. student in 2000, at the suggestion of another great mentor, Dr. Janine Caira. Most of Armand's research at the time revolved around the rich trematode communities of California's salt marshes. I (VJM) had my heart set on continuing work on tropical amphibian parasites, and Armand told me, "I have no problem with you being the frog lady." He truly embraced me as a student with an independent project and trajectory a bit separate from the core of the lab, yet he always maintained an inclusive environment for the lab as a whole. I (VJM) felt that Armand continually expressed curiosity and support for my frog work. Armand is an inspiring graduate mentor. He is a very deep thinker, and he enjoys challenging his students to "think harder." Armand's motto that he continually impresses upon graduate students is "Figure out what is the biggest question you can realistically ask, and go for it." Armand's extraordinary leadership in training young scientists extends beyond the classroom, laboratory, and university campus. Whether it's the cold rocky shores of northern Europe, deep mud in West Coast estuaries, or the heat of tropical mangroves, Armand gets more than his feet wet when mentoring students in the in the field: he's often in waist-high mud along with them on class field trips and research expeditions. In his egalitarian approach he learns along with his students, drawing on his broad experiences to help guide them. In pursuit of evaluating the role of parasites in biological invasions, I (MET) traveled extensively with Armand on various field expeditions around the world.

These trips provided some of the most memorable mentorship experiences. Not only did Armand push me (MET) to "think harder" about scientific research, he provided mentorship in a much broader perspective. Drawing on his broad experiences and knowledge from travels throughout the world (at last count he had traveled to 75 countries) he was mentoring at a much broader level, continuously making connections with the geography. culture, and politics of the regions we were visiting. Providing this broad view and encouraging original creative thought, not only in science but throughout life, makes Armand an extraordinary mentor and bona fide recipient of this year's Clark P. Read Mentor Award. Armand's lab is bound by loyalty and camaraderie, and it is worth mentioning that when you join Armand's lab you become part of his academic family (Fig. 1). Armand takes mentoring seriously and will go to bat in support of any of his students. He claims he likes to "throw undergrads and beginning grads into the deep end of the pool." However, Armand always makes sure that they reach the side of the pool and by the time they leave his lab are able to confidently master the high dive. We feel very fortunate to have Armand as a mentor and be part of the Kuris academic tree. For us, Armand is much more than a mentor; he is a colleague, collaborator, and life-long friend.

LITERATURE CITED

CARLTON, J. T., D. G. FAUTIN, M. G. KELLOGG, B. E. WEITBRECHT, AND A. M. KURIS. 1989. Professor Ralph I. Smith: A tribute to his manuals of marine invertebrates and to his academic progeny. Veliger 31: 135–138.