Delwart Award Recipients: Nicola Clayton and Larry Young

G.F. Striedter

Department of Neurobiology and Behavior, University of California at Irvine,
Irvine, Calif., USA

Few awards are given specifically for accomplishments in evolutionary neurobiology. It was remarkable, therefore, when the Jean-Marie Delwart Foundation announced that its international award for 2010 would go to someone working in Comparative and Evolutionary Neurosciences. Given every 2–3 years, the Delwart Foundation International Award had previously gone to researchers working in chemical communication and anthropology, two fields that are likewise related to the mission of *Brain, Behavior and Evolution*. For the 2010 award, the winners were Dr. Nicola Clayton and Dr. Larry Young.

Dr. Clayton, working at the University of Cambridge, is best known for her pioneering research on the mental capacities of birds, specifically corvids (crows and

their relatives). For example, Clayton and her team designed a clever experiment to show that scrub jays know not only where they stashed bits of food, but also what they stashed and when. This kind of memory resembles the sort of episodic memory that was long thought to be unique to primates. In other experiments, Clayton and her collaborators discovered that scrub jays can engage in ‘mental time travel’, which allows them to plan for the future. Again, this work extends to birds a mental capacity long thought to be restricted to primates. The work’s most general implication is that some of our most celebrated mental capacities evolved not just in the lineage leading to humans but in some birds as well.

Dr. Young from Emory University made a major contribution to evolutionary

neurobiology by showing that monogamous voles differ from polygamous voles in how much vasopressin receptor they express in a specific brain region, the ventral pallidum. Moreover, Young and his team managed to decrease the level of promiscuity in individuals of the polygamous species by overexpressing the vasopressin receptor in the ventral pallidum. Further research revealed the genetic basis for the species difference in vasopressin receptor expression and showed that similar mechanisms are likely to control pair bonding also in other species, including humans. Prior to Young’s work, few neuroscientists would have believed that evolution can tinker with behavioral traits as complex as polygamy by simply altering levels of receptor expression.