

Happy Holidays, friends and family!

It's easy (perhaps obligatory) to start holiday letters with a comment about where Time has gone since the last letter. Surprise! This applies to us two this year (too): Bob's 65th birthday was in April, and we celebrated it, and him, in as many ways as possible: with a symposium sponsored by his department, two parties, and a float trip down the Green River in Utah with three generations of family members (very hot, but lots of fun, especially seeing the grandchildren become instant river rats).

Bob and Medicare still don't seem like a match. As if to prove an inverse relationship between calendar age and energy levels, he headed to Europe four times in four months, interspersed with various domestic travels. I went with him twice, to Zurich and Vienna, but couldn't keep up with the rest. (Maybe when I turn 65 ...)

When I started this letter, we were winding up a visit to Victoria and Vancouver, BC, and resting from an idyllic walk through a rain forest on a dry day. Moss, long and thick, practically flowed from granite outcroppings and carpeted the forest. Golden brown maple leaves the size of (large or even extra large) pizza pans flooded the trail. I'm delighted Bob's work is getting attention far and wide, first (of course) for the sake of his science and second for the opportunities it affords us to see new corners of the world.

We also enjoyed several great non-science visits during the year, including the Green River adventure. In January, we celebrated three birthdays (Henry, Alastair and Ardyth) in Hawaii with Jill and John. I went to my 20-year reunion at the Kennedy School of Government, and saw many of my favorite people, all in one place again. In October, I visited aunts, uncles and cousins in North Dakota for the first time in five years. We enjoyed the Thanksgiving holiday with Sally in New York City. Our loved ones near and far are doing well and seeing them as often as we do is a luxury we cherish.

Ben and Crystal still live in our building and we see them almost every day – a special delight given Crystal's adolescent development and worldview. Ben is preparing to leave the construction business and enter a new career, after sustaining severe carpal tunnel and elbow tunnel (whatever that is called in Latin) damage and having surgery to repair it. Emily's spa is turning away business, thanks to lots of well-deserved good publicity (and business from Crystal and me). Jill, John, James, Holly, Henry and Alastair still live in Hawaii. Sally still lives on the lower East Side in New York City, close to where Bob's great grandparents got off their ship (from somewhere in Germany) in ~ 1848. Life has been good for all of the offspring this year, much to our pleasure and delight.

The other continuing trend from past years is the reluctance of said offspring, almost to a person, to participate in family photos. We confess to being a bit mystified, since they all posed for 15 years, but we've finally accepted the change and offer you only ourselves!

Time has sped by again. We don't know how that happened, yet again. But we do know it has given us more appreciation for our lives, deepened our love for our family and friends and left us with the profound understanding that we are very, very lucky – even though we can't pause or rewind when we'd like. We hope Time brought you the same gifts this year, and next year, too!

Bob can't resist a note about his science: this year has brought several big changes, as important as unforeseen.

After years of working on oversimplified models of calcium channels, and finding that work did *not* explain sodium channels (the ones that make nerves work), we added a little more to our model, and all of a sudden we had sodium channels too. With only two adjustable parameters (diameter and dielectric coefficient, for the scientists reading this), set to reasonable values for the calcium channel *and never changed at all*, the main properties of both calcium and sodium channels can be explained in a wide variety of conditions. When this sort of thing happens in biology, the most likely explanation is that the model and parameters are the ones evolution chose to use. Time will tell whether that is the case for our model and whether we are as right as we think we are.

Things have been right administratively as well. Rush has been led out of the wilderness by a fine administration and Dean and is now supporting basic science. We are recruiting and have been joined by two laboratories (two Professors and three tenure track Assistant Professors) in the last year or so!

Most importantly, the remarkable scientists in my department have continued their record of major contributions and concomitant grant support. Everyone (with lab space) has had continuous grant support for more than 20 years and two laboratories, working in very different areas, had the best rated grant application in their review group last year. It is a joy (as well as a pleasure and privilege) to work with such a group of colleagues who seem to be getting more productive with age.



