

Lino Saez ...clocked with humility and humor

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昨年10月24日、Lino Saez博士が永眠された。享年60歳であった。Saez博士は、時間生物学者としてロックフェラー大学に30年間在籍され、研究室を主宰しているMichael Young教授のもとで、時計遺伝子の発見や時計振動体の分子機構の解明に、多大な貢献をされた。Saez博士の死は、時間生物学にとって大きな損失であり、悲しみに堪えない。今回、Young教授のほか、無二の友人であるCedric Wesley博士に追悼文を寄稿していただくとともに、ご家族から当学会員の皆様にメッセージをいただいた。Young教授やWesley博士の文章からは、これだけの偉業を達成するBig Labが如何にして成り立ってきたのか、Saez博士が研究室の屋台骨を

支えていたことを伺い知ることができる。また、奥様のMonica Roth博士はご自身も分子生物学者として活躍されており、ご家族からのメッセージは、長い研究者人生を歩む上で何が重要なのかを明示されている。この追悼文は、志をもつ若い研究者の方に、是非読んでいただきたい内容である。

Lino Saez博士のご冥福を心よりお祈りいたします。

Lino was born in Traiguén, Chile. He was the second youngest of eight brothers and the only one to leave for a career outside of Chile. He came to the United States after being accepted for graduate work by the Einstein College of Medicine, where he studied genes encoding human muscle myosins as a graduate student with Leslie Leinwand. He planned to do postdoctoral work focused on molecular mechanisms of learning and memory in mice, but instead became interested in new work being done in the Young Lab at Rockefeller University that was exploring the molecular basis of circadian rhythms using mutants of *Drosophila*. He joined Rockefeller in 1986.

Lino made beautiful and important discoveries spanning the full breadth of his 30 years at Rockefeller. His first studies at Rockefeller identified developmental patterns of expression of the clock gene *period*. He later devised powerful techniques to study *Drosophila*'s circadian rhythms at the level of single cells, and was the first to build pieces of a working clock in naïve cultured cells to explore their fundamental properties. His cell-based approach was extremely powerful and quickly adopted by others, critically advancing research in a variety of animal systems.

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Lino was regarded by all of his colleagues at Rockefeller as the heart and soul of the Young Lab. He trained every technician, guided each new student and helped every new postdoc get underway. He was generous and kind, but always critical - pushing so that the best would show through in his colleagues.

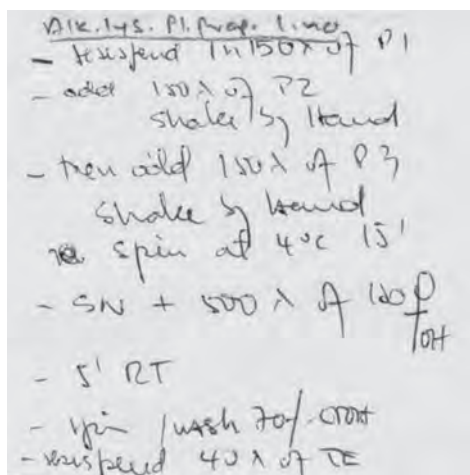
The Rockefeller University, Michael W. Young

“Bring it here” , his hand gesturing me towards him, was how Lino responded to any technical or conceptual issue I was pondering. The first time I encountered this response was when my plasmid preparation did not yield a visible precipitate. He looked at my tube, asked me a few questions, and wrote down the procedure for me on a post-it note. This note (shown on the right) was written in 1992 and I used it just a few weeks ago! [The first line in the note is my handwriting; all others are his.] It is Lino’s legacy in me that all my frequently used protocols are on post-it notes. How else can one run multiple procedures simultaneously on a small bench, which was what Lino did every day in the lab, in addition to helping everyone else around him. It did not matter whether he was busy or having lunch. I have ruined many of his experiments by approaching him without bothering to see if he was free. That’s how approachable he was. I do not remember him ever getting upset. I also used to have heated arguments with him on matters ranging from science to politics to, on rare occasions, personal. While I used to get exasperated and ‘threatened’ to

shake the refrigerator where he kept racks upon racks of microfuge tubes, Lino just laughed, “Heh, heh, heh, wouldn’t you!” On occasions when he did get upset with something or somebody, his lips tightened a bit and he lapsed silent. That was it. He never walked away from an issue and never remained upset for too long, let alone hold grudges. Lino was the kind of person who made being in the lab fun, both scientifically and personally. And he was charming. His quips and jokes in situations instantly dispelled gloom or discomfort and elicited laughter. It was the way he captured the moments with so few words, often delightfully mangled, and delivered them masterfully with that twinkle in his eyes or a disarming smile. Not a day passes by without something or the other I do in the lab reminding me of Lino. He was such a rare blend of humor, humility, and science. Thanks Lino, for making the lab a better place and science much more enjoyable.

University of Wisconsin, Cedric S. Wesley

In 2003, Lino was invited to the World Congress of Chronobiology (WCC) at Hokkaido University, Japan. He came home full of smiles and good memories, with a gift of a Japanese calligraphy from Shoji Inami, which he said symbolized “The Dream” . This remains hanging in our living room, as it embodied one aspect of Lino, who followed his big dreams to America, and created our family. Lino’s favorite saying was that for every problem, there is a solution. This was his scientific side coming out, grasping the reality of the problems he faced. These two apparent



conflicting ideals are the essence of Lino's life, both personal and scientific. Dreaming of the big picture but collecting and analyzing data to find the solutions to problems.

Lino never placed one aspect of his life over another. He never brought the problems or events from the lab home. This allowed him to give everyone his full attention. Family life, both in Chile and the United States was equally as important to him. He made sure everyone was being the best they can be. This feeling was reflected back to him through everyone he interacted with. Lino enjoyed life. He enjoyed the work, the food, the travels, the sports, the music, and life in general. Nothing comes easy, and he faced the difficulties in order to be part of the world with a smile in his heart.

It didn't matter if you knew him for one minute or for decades, you truly knew the person that he was. Everything was better, easier, and more fun when he was there. Lino, was one of the most caring and compassionate people out there. He always wanted to know about your life, make you laugh, and if he could, help you out in some way. No simply was not a word in his vocabulary. He was ready for anything and everything that came at him. He lived a full life, traveled the world and saw his family grow.

Here are a few things that we have learned from him: Give your heart to your close ones and everything you do. Help where you can. There is a solution to every problem, you just have to find it. Never give up. Laughter cures all. Family is above everything else. Actions speak louder than words. Mind over matter. Don't let the little things keep you down. Follow your dreams, and reach for the stars. Anything is possible. We are honored that he will be remembered in this journal.

Monica, Paloma and Daniel

Young研に留学した当時、私はLinoからショウジョウバエ実験の手解きを受けた。それ以降、共同研究者そして友人として、彼との間には数多くの思い出がある。ある日、私は実験に没頭するあまり、妻の誕生日を忘れてしまった。Linoに、深夜まで開いているケーキ屋はないかと相談すると、なんと彼は、ケーキ屋を探すため、夜中、一緒になって町中

を走り回ってくれた。やっとケーキ屋を見つけると、彼は私の妻へのプレゼントだと言ってケーキを渡してくれた。また、(恥ずかしい話だが)私が留学中に彼から一番多くかけられた言葉は、「Hey, Masami, Easy!」である。昼夜なく必死に実験している私(日本人)が、よほど滑稽だったのかも知れない。当時の自分には苦笑いを返すしか方法がなかった。留学後しばらくして、最も大事な実験に成功した時は、トップジャーナルに掲載の成果だと共に大喜びしてくれた。しかし、念のためと思い、後日、実験データをチェックしたところ、実験過程にミスを見つけ、Labの仲間を失望させてしまった。(Young研でさえ)そう簡単に新しい時計遺伝子を見つけられるはずもないのだが、チャレンジするチャンスを与えられたことに、今も心から感謝している。

私の帰国後、最初にLinoを日本に招聘したときには、私の妻の運転で富士山にドライブして温泉宿を回った。その珍道中に3人で大笑いしたのを思い出す。彼が日本に来たときは、つくばの自宅アパートの一室に、ありったけの布団を重ねて即席ベッドをつくり寝てもらった。逆に私がニューヨークに行くときには、ホテルを取らず彼のアパートに泊めてもらうのが常であった。Linoの2度目の来日には、妻のMonica、娘のPaloma、息子のDanielも一緒にやってきた。私の実家へ彼らを招待し、齢80近い私の父の手ほどきで、子供達に蕎麦打ちを体験してもらった。手狭ではあるが、家族揃って農家(古民家)に宿泊してもらった。当時、私の妻は臨月で、妻が破水したときに一緒に家にいてくれたのがLinoであった。手元には、生まれて数日後の私の長男を抱きかかえて笑っているLinoの写真が残っている。友人とはいえ、何という偶然であったろうか。

思い返せば、Linoとの時間は、楽しい思い出ばかりである。愉快だった。その彼がもうこの世にいないことが、いまだに信じられない。自分が若い頃は想像できなかったことだが、年齢とともに仕事と責任が増し、ここ数年は毎日のようにやってくるしめ切りに押しつぶされそうになるときがある。そんなとき、彼の声ははっきり聞こえる。「ハイ、マッサージ、イーズイー」

なんべんも言うなって、わかってるよ、Lino。

私と私の家族の人生を豊かなものにしてくれたLino Saezに心から感謝する。

霜田政美・夕雨子



左から、Paloma, Lino, Monica, Daniel



つくばのアパートにて