

# Historical Note

## **Sandra Enrica Russo- Rodriguez**

**February 11, 1959 – February 17, 2018**

Compiled and written by Michael P. Filosa

I was saddened to see in the most recent copy (March 30, 2018) of MIT's Chemformation newsletter that old friend and colleague Sandra Russo-Rodriguez had recently passed away from cancer at the age of 59. Sandra joined our chemistry team at Polaroid in 1984-85 reporting to Roger Boggs. She stayed with us for about five years at which time her husband, Andres, had completed his training as a psychiatrist and was assigned by the Air Force to Lowry Air Force Base in Denver. In Colorado Sandra continued to develop her career as a bench chemist at Amgen in Boulder.

As the wife of an Air Force psychiatrist, Sandra moved around and was next in El Paso before returning to Massachusetts and living on Cape Cod. At that point around 2003, I was charged with developing dyes suitable for full color direct thermal imaging. Because these dyes did not exist commercially, we launched a large synthetic effort to invent them. At the peak of this effort I had 13 synthetic chemists reporting to me.

Early in this process, I was seeking skilled synthetic chemists and was able to convince Sandra to drive from the Cape to Waltham 3-4 days a week to make dyes for me. Ultimately, our synthetic effort was successful and we developed the C, M, Y dyes which are the foundation for ZINK Imaging's direct thermal paper now used in portable printers and combination camera/printers available from manufacturers such as Polaroid, LG, Prynt and Hewlett-Packard.

Driving from the Cape to Waltham 3-4 days a week was not sustainable and Sandra next sought out teaching opportunities. I was pleased to write a recommendation for her to Brown University, and was even more pleased when she was hired as an instructor. At Brown she had 13 successful years and was a beloved instructor and mentor. From her obituary published by Monahan-Drabble-Sherman Funeral Home, Providence, RI: <http://www.mkds.com/obituaries/Sandra-Enrica-Russo-Rodriguez?obId=2971460#obituaryInfo>

Dr. Russo-Rodriguez was born in Mayagüez, Puerto Rico to her parents, Consuelo Suarez and Saverio Russo. Showing exceptional academic promise from an early age, she earned a B.Sc. in Chemistry, magna cum laude, from the University of Puerto Rico in Rio Piedras, and at the age of 24 completed a Ph.D. in Organic Chemistry from the Massachusetts Institute of Technology with Professor William Rastetter. After

postdoctoral research at MIT with Professor William Roush, her successful career as a research chemist spanned nearly two decades.

She worked as a research scientist, including positions at Amgen and Polaroid, and authored more than 20 scientific publications—including 11 patents. Before transitioning to her teaching career, she made significant contributions to the field of synthetic bioactive molecules, including the synthesis of several novel dyes and modified nucleotides.

Over the past 13 years, Dr. Russo-Rodriguez was a valued and beloved faculty member of the Brown University Community by students and colleagues alike. She joined the faculty of Brown University Department of Chemistry in 2005 to lead the tutorial program, CHEM0330T/0332, which provides students with an opportunity to study the challenging introductory chemistry course CHEM0330 in an individualized setting which focuses on guided inquiry, active learning and collaborative problem solving.

She also taught online summer tutorials and lecture courses, such as CHEM0100, to help students transition to college-level chemistry. Her innovations in each of these courses are too numerous to list here, and she her outstanding contributions shaped the development of the Chemistry tutorial curriculum.

Dr. Russo-Rodriguez was committed to making the STEM fields as accessible and inclusive as possible, and she provided exceptional support and teaching to students from all backgrounds. She was a freshman/sophomore adviser and mentor, a TEAM Adviser, and a Randall Adviser.

She will forever be remembered for the deep connections she made with her students and advisees, her thoughtful advising, as well as her fervent belief that success in chemistry can be achieved by anyone, regardless of previous educational background. Her office door was always open to her students and advisees, and even near the end of her life she was providing support to students from afar.

Dr. Sandra Russo-Rodriguez's commitment to student achievement and advancement was well-recognized by the University community. She was honored with a Teaching and Advising Award by the Undergraduate Council of Students, presented to faculty who "demonstrate outstanding commitment to teaching and student mentorship," in 2014; as well as the Student and Employee Accessibility Services (SEAS) Access Ambassador Award, presented annually to a faculty member who has "demonstrated exceptional awareness, inclusiveness, and support for students with disabilities," in 2017.

Outside of teaching and science, Dr. Russo-Rodriguez was a beloved wife and mother, an avid bicyclist, skier, and a hiking enthusiast. She loved walking along sun-dappled trails with her family and friends—whether through the mountains of Colorado, the oak-lined boulevards of Providence, or the beaches of Puerto Rico and Cape Cod. She also loved reading, and had a deep appreciation for visual and musical arts. When not caught up in the plot of a novel, she could often be found playing her favorite Chopin pieces on the piano or producing watercolor and pencil sketches.

She is survived by her husband, Andres Rodriguez, M.D.; her son, Carlos Rodriguez-Russo; her daughter-in-law, Kelly Holt; her sisters, Maricarmen Russo, Lily Russo, and Ines Russo; her brother, Alejandro Russo; her parents, Consuelo Suarez and Saverio Russo; and numerous nieces and nephews.

A Memorial Service was held at 2:00 pm on Saturday, February 24th at Manning Chapel on the Brown University Campus. In lieu of flowers, her family welcomes donations in her name to the American Cancer Society and the Adenoid Cystic Carcinoma Research Foundation.