

## Maria Socorro Villacorta Maniquis Painter (chemist and blogger)



Maria Socorro Villacorta Maniquis Painter AKA Corry Painter is a blogger and the website creator of [www.hersciencejourney.com](http://www.hersciencejourney.com). She received her BS in Chemistry degree from the University of Santo Tomas (UST) in Manila, Philippines and her MS in Environmental Management from the University of San Francisco (USF) in San Francisco, California. She received a second MS, in Hazardous Waste Management, from the National Technological University (NTU). Corry worked at Lawrence Livermore National Laboratory (LLNL), a national laboratory run by the Department of Energy in Livermore, California. She first worked in the Hazards Control Department of LLNL, then in the Radioactive and Hazardous Waste Management Division of the Environmental Protection Department. Her last job was at the High Explosives Application Facility (HEAF) where her team's project won the R&D 100 award in November 2014 for detection of explosives in the field. She has more than 35 years' experience in the environmental, health, and safety fields.



**Her science journey** began when Corry was born in Cabanatuan City, Nueva Ecija, Philippines in 1955. She was the oldest of 8 children of Juanito Maniquis and Aurora Villacorta Maniquis. Corry has been an honor student since first grade (she did not attend preschool and kindergarten) and received gold and silver medals throughout her school years.



She had free tuition most of her elementary school years since she was always #1 in class. She graduated class valedictorian in elementary school at the College of the Immaculate Conception (CIC) in Cabanatuan City and was class salutatorian at Nueva Ecija High School (NEHS). Throughout her elementary and high school years she was praised by her teachers for being a leader and a role model for her classmates. She was also active in extra-curricular activities and



was the editor of the “The Buds” newspaper in elementary and associate editor of “The Granary”, the school newspaper of Nueva Ecija High School. After graduation



from high school, she received the State Scholarship from the national government which provided free tuition, free board and lodging, free uniforms, free books, and a free transportation allowance at any school in the Philippines. She enrolled at the College of Science of the University of Santo Tomas (UST) in Manila and graduated in 1977 with a BS degree in Chemistry.

## **WORK AFTER COLLEGE**

In August 1977 she started working at her first job as a Quality Control Inspector at Florofoto Photofinishing, Inc., a photofinishing plant in Quezon City, Philippines. The company was the local Filipino competitor for Kodak Photofinishing but was very much ahead of its time on Diversity, Equity, and Inclusion (DEI). The Plant Superintendent was a woman (unheard of at that time), and the company employed blind people in the dark room processing film negatives. Corry was impressed at a very young age at how the company utilized handicapped people for a job that was suitable for them. The company also had deaf/mute employees who sorted the printed photos before they were given back to the customers.

When an opportunity came, Corry changed jobs and worked at the National Pollution Control Commission (NPCC), the EPA equivalent in the Philippines and

thus began her 35-year career in the environmental field. It was her dream job ever since she took the Environmental Chemistry class in her Senior Year. She read the class textbook “*Chemistry for Changing Times*” by John W. Hill from cover to cover and was hooked! She knew she wanted to work in this area of chemistry!

At NPCC, she performed bioassay tests on Philippine food fishes, subjecting the fishes to different pollutants to determine their LC<sub>50</sub>, the concentration of the pollutant e.g. cadmium when half of the population of fish will die after 96 hours. She also learned to perform physical and chemical analyses of wastewater; training that will help her find her first job in the United States. She met lifelong friends (mostly chemists and engineers) at NPCC. They still meet for reunions at different parts of the United States and in the Philippines. NPCC is now a part of the Philippines Department of Environment and Natural Resources (DENR).

## **LIFE IN THE UNITED STATES**

Corry immigrated to the US in February 1980 to join her family who were living in South San Francisco, California. Her first job was as a laboratory analyst at South Bayside System Authority (SBSA) in San Carlos, California. It was a primary wastewater treatment plant located in the San Francisco Bay Area that treated wastewater coming from the cities of San Carlos and Belmont. In 1982, SBSA moved to a new, regional, secondary treatment plant located in Redwood Shores and closed the primary treatment plants in San Carlos, Redwood City, and Menlo Park. This time the treatment plant treated wastewater from the cities of San Carlos, Belmont, Redwood City, and Menlo Park. She enjoyed working in the new treatment plant! She helped design the laboratory for this new treatment plant. Her thesis for her MS in Environmental Management at USF was a comparison of the effluent treatment data from the primary and secondary treatment plants.





In 1984, she married Dr. Jeffrey Painter, a mathematician at Lawrence Livermore National Laboratory (LLNL). They bought a house in Castro Valley since it is located halfway between Redwood Shores and Livermore. In 1987, they decided to move to Livermore to be closer to Jeff's work and so that Corry could stay home to take care of her two young children. This is one way Corry could have a better work-life balance. As a young, working mother with two small children, she led a very hectic life so when interest rates went down, they sold their house in Castro Valley and moved to Livermore. Houses were cheaper in Livermore than Castro Valley at that time. During those three years at home, Corry took classes in the evening at Las Positas College, the community college in Livermore. She received an Associate Degree in Occupational Safety and Health and another Associate degree in Radiation Technology. When her children reached school age, Corry went back to work part time as an Environmental, Health, and Safety (EHS) manager at Plant Cell Research Institute (PCRI). PCRI was a small agricultural biotech company located in Dublin, California, a city near Livermore. When the company was bought by Pioneer Seeds of Iowa and closed in 1991, Corry found a new job at the Hazards Control Department of LLNL. Now she and her husband were both working at LLNL, 10 minutes' drive from their house. After one year, Corry transferred to the LLNL Hazardous Waste Management (HWM) Division (later becoming Radioactive and Hazardous Waste Management (RHWM) Division of the Environmental Protection Department. She ran the Waste Characterization Laboratory of the Environmental Process Engineering Group (EPEG). In 2004, the new Decontamination and Waste Treatment Facility (DWTF) was opened. She procured the instruments and laboratory equipment for the new Waste Characterization Laboratory at DWTF. Corry worked at RHWM for 18 years; seven of those years were as a characterization chemist at DWTF. She did a complete characterization and analyses of hazardous, radioactive, and mixed wastes using an Inductively Coupled Plasma (ICP) spectrometer and X-Ray Fluorescence (XRF) for metal analyses, a Gas Chromatograph/Mass Spectrometry (GC/MS) for volatile and semi-volatile organics analyses, Liquid scintillation counter (LSC) and a Gamma Spectrometer for radioactive analyses. She enjoyed

doing analyses of waste because it was like a detective's work; you don't know what you'll find in the waste. The DWTF also did stabilization, solidification, and other treatment for hazardous, radioactive, and mixed wastes. It is very satisfying when the results of an analyses show that the treatment was successful and could remove the hazardous or radioactive components. "Mixed waste" means that the waste contains both hazardous and radioactive components. LLNL is one of the facilities in the US which has a permit to treat mixed waste. If you remove the radioactive components then you can send the waste to a hazardous waste landfill. If you remove the hazardous component, then you can send the waste to a radioactive waste landfill. But if you have mixed waste no facility will accept it, so it is very important that one or the other component be removed.



Development team for microTLC™ (thin-layer chromatography): (back row from left) M. Leslie Carman, Ana Racoveanu, and John G. Reynolds; (front row from left) Socorro "Corrie" Painter, Philip Pagoria, and Joe Satcher. (Not shown: Richard Whipple, formerly of Livermore.) (Photo by George A. Kitrinis.)

When the opportunity arose, she changed jobs and moved to the High Explosives Application Facility (HEAF) to perform characterization of explosives. It was a good move! Her team won the R&D 100 Award in November 2014 for their Micro Thin Layer Chromatography (TLC) explosive detector in the field. It was a fitting end to her career in Chemistry! She retired in 2015 to take care of her newly born granddaughter.

Corry was active in several organizations at LLNL. In 1992, she was part of the first Diversity Action Team (DAT) at LLNL. The team made recommendations on how women and minorities could be helped to get into management positions at LLNL. In 1995, Corry founded the Filipino American Networking Group (FANG) at LLNL and became the Charter President of the organization. In 1998, she became the first Filipino Chair of the Asian Pacific American Council (APAC) at LLNL. She was also active in the Lawrence Livermore Laboratory Women's Association (LLLWA). She was the Chair of the Women's History Month Celebration in March 2015. Through a joint mentoring project of the LLLWA, the American Association of University Women (AAUW), and Las Posita College (LPC), she mentored three female students at LPC. These young women started as three students unsure about what college major they would like and how they could transfer to a 4-year university. Two years later they were three confident students

in their respective colleges and universities. All three are now working in different areas of science. One is a chemical engineer at Amgen, one is a registered nurse in a dialysis clinic in the Sacramento area and the other one is a newly married civil engineer. The chemical engineer even went to graduate school at UC Berkeley. Corry is very proud of these young women she had mentored through the years and what they have achieved in their careers.

Corry is also active in civic and religious organizations at Livermore. She was a former President of the Livermore Filipino- American Organization, Inc. and is currently the chair of the Welcoming Ministry at St. Michael Parish. She is a former member of the Parish Council and was the former chair of the St. Michael Parish Festival. She is one of the founders of the St. Michael Filipino Community (SMFC).

In May 2024, Corry started a blog/website called [www.hersciencejourney.com](http://www.hersciencejourney.com). The blog was a celebration of women in science. She started this blog for her two granddaughters. She wanted them to be inspired by the lives of these women scientists. This is one way to encourage young girls to be interested in science.



## **AWARDS AND ACCOMPLISHMENTS**

Corry has received many awards over the years. At LLNL, she has received the LLNL Director's Office Directorate Award, the Physical and Life Sciences Chemical Science Division Award, the 2013 Director's Institutional Operational Excellence Award, the 2014 R&D 100 award and a Certificate of Appreciation from the LLNL Office of Diversity and Inclusion Programs for her work in the Asian Pacific American Council in 2015.

She received an Outstanding Alumna award from Nueva Ecija High School Class 1972 in November 2012 and a Leadership award from the Livermore Filipino American Organization, Inc. in 2017.



In February 2016 she went back to the Philippines to receive the Outstanding ANAK (Anak ng Kabanatuan) Award from the Mayor of Cabanatuan City, Nueva Ecija Philippines. This is an award given to people who were born in Cabanatuan City and have made significant contributions to society - so that the city is proud to call them its children. Anak is the Tagalog word

for a child. In the photo Corry received the ANAK award from the mayor of Cabanatuan City, Mayor Jay Vergara, who was standing next to her on her right. On her left is her son Harry who accompanied her to the award ceremony. Classmates from elementary school and high school are on the left side of Harry and her aunt and cousin and nephew on the right side of the mayor.

### **ADVICE TO NEW GRADUATES**

Corry's advice for new graduates is to look for a job that they will enjoy. A person would do a better job at work that she enjoys. Otherwise, the job becomes a hardship, where one feels trapped in a job that she doesn't like. Another piece of advice is that one should do her best in any job. Give it a 100% performance all the time. Any job worth doing is worth doing well! The supervisor will notice it!

Her supervisor gave her this gem of advice when she first worked at Lawrence Livermore National Laboratory. He said, "The people you meet on your way up will be the same people you will meet on your way down. So, be respectful and kind to everyone!"

Do not be afraid to move to another job if you think that job will be more fun and interesting than your current job. Always write a PROS and CONS comparison before you change job. Mental health and peace of mind are very important. Your salary may be high but if you are always worried your supervisor will scream at you in the morning then it is not worth the high salary! You may be hesitant to leave your current job because of the salary but if you're not happy with your situation you should leave. But only leave after you have found another job!

Always try to improve yourself! Enroll in continuing education, online courses, learn the new software available, keep yourself updated on the latest models of

laboratory instruments and get certified on all the courses available to you! If your company has a tuition reimbursement program, you should try to go to graduate school at night while you're still young and have no family to support. Anything you do from the time you graduate from college will be added to your resume. Even volunteer work will look positive on your resume.

Always be thankful to your supervisors and mentors. They all helped you get to where you are now. Be active in organizations in your company e.g. Women's organizations, Asian organizations, Toast Master, any organization where you will have a chance to meet other employees from other departments. This increases the number of your contacts in the company and it is useful to have connections in other departments aside from the one where you are currently working.

Keep in touch with former classmates, teachers, and co-workers. They are good sources of information for job openings and new trends in the industry. Always attend class reunions! Perhaps the next big thing in your life may be at the reunion e.g. a spouse, a business partner, or a mentor.

## **HER SCIENCE JOURNEY**

1955 - Corry was born in Cabanatuan City, Nueva Ecija, Philippines

1968 - Graduated valedictorian at the College of the Immaculate Conception (CIC) Elementary School

1972 - Graduated salutatorian at Nueva Ecija High School (NEHS). Was chosen as the state scholar from NEHS and Nueva Ecija Province

1977 - Received her BS in Chemistry from the University of Santo Tomas (UST), First job at Florofoto Photofinishing, Inc in August. Moved to National Pollution Control Commission (NPCC) in November

1980 - Immigrated to the United States. Started working at South Bayside System Authority (SBSA)

1984 - Married Jeffrey Painter, a mathematician from St. Louis, Missouri

1985 - Oldest son John Paul was born

1986 - Second child Harry was born

1987 - Moved to Livermore and stayed home for 3 years to take care of small children. Attended OSHA and Radiation classes in the evening.

1990 - Worked part time at Plant Cell Research Institute (PCRI)

1991 - Started working at the Hazards Control Department of Lawrence Livermore National Laboratory (LLNL)

1992 - Moved to the Hazardous Waste Management (HWM) Division of the Environmental Protection Department of LLNL

1995 - Started the LLNL Filipino American Networking Group (FANG)

1998 - Chair of the LLNL Asian Pacific American Council (APAC)

2011 - Worked at LLNL High Explosives Application Facility (HEAF)

2014 - Won the R&D 100 Award

2015 - Retired from LLNL to take care of newborn granddaughter

2024 - Started [www.hersciencejourney.com](http://www.hersciencejourney.com) blog and website