

CURRICULUM VITAE

Krisztina Pongracz Ph.D

EDUCATION

1970 M.S. Eötvös Lóránd Tudományegyetem
Budapest, Hungary
1984 Ph.D. Eötvös Lóránd Tudományegyetem
Budapest, Hungary
1985-1988 Postdoctoral training
University of California San Francisco

PROFESSIONAL EXPERIENCE

1970 September – 1978 May
REANAL FINOMVEGYSZERGYÁR Kémia 4 üzem
Budapest, Hungary

Synthesized amino acid and dipeptide derivatives and other organic molecules to be sold by the company. Each compound was documented in a way that it was possible to manufacture them reproducibly and with high purity.

1978 May – 1984 May
CHINOIN GYÓGYSZERGYÁR KUTATÓCSOPORT
Budapest, Hungary

Our group was involved in antibiotics research, the goal being to develop new compounds with broad efficacy against both gram + and gram – bacteria. Large number of compounds were synthesized using conjugation of peptides with heterocyclic compounds such as oxolinic acid. This work became the topic of my Ph.D. thesis.

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1982 FEBRUARY – 1982 July

CREATIVE BIOMELECULES Inc.
Brisbane, California

I synthesized oligonucleotides to be sold for molecular biology research. At the time only multistep organic chemistry methods were used.

1984 October – 1985 March
AMERICAN BIONUCLEAR Inc.
Emeryville, California

Oligonucleotide synthesis by custom order, purification, quality control by gel electrophoresis and radiolabelling. Automated synthesis using solid support was employed.

1985 March – 1986 March

UNIVERSITY OF CALIFORNIA SAN FRANCISCO

Visiting scientist in the Pharmaceutical Department.

Our group was involved in drug delivery research using liposomes. My main project was to synthesize a prodrug from ribavirin.

1986 March – 1988 March

UNIVERSITY OF CALIFORNIA SAN FRANCISCO

Visiting scientist in the Brain Tumor Research Center

The main focus of our research was to study the metabolism of environmental carcinogens and determine what kind of damage they cause in DNA.

1988 March – 1995 December

UNIVERSITY OF CALIFORNIA SAN FRANCISCO

Research chemist in the Brain Tumor Research Center

The research was funded by Superfund. We worked on benzene, styrene, the breast cancer drug tamoxifen, BCNU, smoking. I identified numerous carcinogen-nucleoside adducts, mainly with guanine. The work contained radiolabeling methods, to identify adducts. And compare the synthesized compounds with the DNA derived ones.

We attended most Cancer Research meetings with posters and published large number of papers in peer reviewed journals.

1996 July – 1998 May

LYNX THERAPEUTICS Inc.

Hayward, California

Senior Scientist

The company was developing new oligonucleotide therapeutics. The novel structure containing 3'-amino group on the sugar residue posed challenges both with the synthesis and purification. I was also using nontraditional building blocks, one publication resulted.

1998 May – 2013 June

GERON CORPORATION

Menlo park, California

Senior scientist, later group leader

Geron was founded on telomerase, the enzyme responsible for the immortality of cancer cells. Elizabeth Blackburn received the Nobel prize for her discovery of the enzyme and determining its role in normal and cancerous cells. 95% of cancer cells have this enzyme which is responsible for the immortality of cancer cells. Inhibition of this enzyme promised to be a universal cancer treatment.

The company was testing thousands of compounds (small molecules) with two major collaborators to find a potent inhibitor of telomerase. These efforts did not work out eventually. Our group synthesized hundreds of oligonucleotides targeting the RNA template of telomerase. We used 3'-amino modified building blocks, but other modifications as well. We tried out numerous lipids for conjugation to make drug delivery easier.

Our work was presented in peer reviewed journals, meetings posters, oral presentations. Large number of patents were also filed. Due to the small group doing this work it was also necessary to be involved in process development issues as well, analytical method development, large scale manufacturing with contractors. The chosen drug candidate a lipid conjugated modified 13-mer was in clinical trials for several cancers, but only after blood cancers were targeted we had success.

We also tried to develop a small molecule as well, because an acyclic modified guanine nucleoside showed promise.

2015 May – 2017 June

ALIOS BIOPHARMA, later JAHNSSEN

Senior scientist

The company was focusing on developing a chronic Hepatitis B drug.

Large number of compounds were synthesized targeting the virus life cycle, numerous modifications were used.

Footnotes

In my working life of 47 years I had the opportunity to work with many people and many organizations. After graduation I applied for several jobs, but I managed to get one only with help of my mother in law, who was working at Reanal. I tried to make the best of it and be as productive as I can. After going back following the birth of my daughter I did not have a lab anymore. My son was born two years after my daughter and I did not return to Reanal.

My job at CHINOIN was a compromise, working close to my apartment with two little kids had advantages. But again I tried to make the best out of it. Getting my Ph.D. was really important for my career in the US.

I worked at Creative Biomolecules for 6 months during my husband's one year postdoctoral work at the University of California San Francisco. I got the job by answering an ad in the newspaper. It was hard to quit, when we had to go home.

In 1984 we had an opportunity to return to San Francisco under better circumstances. But immigration changed and I did not get a work permit for 5 months. I got a job immediately upon the recommendation of my previous boss. Unfortunately the company got sued over the newest chemistry and I was laid off.

Walking around at UCSF I saw a name on a door which seemed to me Hungarian. I walked in and introduced myself and had a good chat with a professor who is Hungarian American, but does not speak the language. He decided to hire me, but it lasted only one year, he could not get funding. Working with him made it possible for me to get my own visiting scientist visa.

I managed to get my next position through personal contacts from my husband's first stay at UCSF. The professor I was working with was part of a large group working on carcinogenesis funded by Superfund. UC Berkeley, Lawrence Livermore laboratory were involved. End of 1995 our funding was cut and I had to look for a new opportunity.

The job at Lynx Therapeutics was advertised and I was called in for an interview. Sergei Gryaznov was the director of chemistry and a new type of oligonucleotide was his invention. After less than two years the project was scrapped and Sergei fired. I had an option to stay.

As soon as Sergei had a job at Geron Corporation I followed him and we had an extremely productive working relationship for 15 years. The anticancer oligonucleotide drug we developed was accepted by the FDA last year for myelodysplastic syndrome.

Our time at Geron was turbulent to say the least. When the large chemistry group working on small molecules did not produce any results they were all fired. The CEO was crazy for embryonic stem cells and spent huge amount of money to develop it. We had to make do with minimal resources.

I for example had to do process development, analytical development, traveling to manufacturing sites, troubleshooting.

By 2011 the company started to have financial problems and the CEO was fired by the board. The new CEO immediately scrapped the embryonic stem cell project and two small projects as well. The company was focusing finally on our cancer drug.

In 2013 the research group was laid off and the company continued with a small staff managing the clinical trials.

At Alios Bopharma/Jahnssen I had the opportunity to work under the best circumstances. Money was not the problem, the beautiful laboratories were equipped with the most up to date synthesizers, HPLC-s, mass spectrometers, NMR-s. I enjoyed working with people from all over the world.

My decision to retire at 70 was hard, but it was time.

Reading Katalin Kariko's book I could really relate to her struggles. It is awfully hard to succeed for a woman in academia. But working in industry also has its challenges.