Ingenuity. Attention to detail. Expertise. Compassion. These are just a few of the qualities that the best medical researchers bring to their field. Nader Fotouhi, Ph.D. ’80 and the research team at Hoffmann-La Roche (Roche) are on the cutting edge of developing individually tailored cancer treatments. This could be how medical care is delivered for an array of diseases in the not-too-distant future.

“By targeting therapies, Roche’s research and development efforts aim to enable healthcare to be tailored more closely to patients’ needs,” said Fotouhi. “As both a diagnostics and a pharmaceuticals company, Roche is ideally placed to enable medical care to become even more personalized, opening up new ways to prevent, diagnose and treat illness.

“The rapid progress in research has given us important insights into the molecular mechanisms of disease,” he said. “We also know that two people can react differently to the same medication and that this is based on variations in our genes.”

His enthusiasm for his research is apparent—and it started at Assumption. As a natural sciences major, Fotouhi studied biology and chemistry. He found his professors were incredibly knowledgeable, truly enjoyed teaching and were dedicated to the students. When he decided he wanted a graduate degree in either immunology or medicine, Organic Chemistry Professor Eugene Byrnes suggested Fotouhi pursue a master’s degree at the College of the Holy Cross. “Once there, I was exposed to pharmaceutical research,” he said. “And when I made my first molecule that could potentially become a drug, I was convinced that I would pursue a career in drug discovery research.”

After earning an M.S. in chemistry from Holy Cross, he attended M.I.T. and earned a Ph.D. in organic chemistry. He spent two years in post-doctoral fellowship at M.I.T. and then decided to enter the pharmaceutical industry.

He interviewed at two companies and liked the atmosphere at Hoffmann-La Roche, comparing it to Assumption’s welcoming community. Fotouhi had come from France to attend Assumption without even visiting. He recognized the importance of finding an organization that matches one’s personality—as Assumption had. “The students were friendly,” he explained, “and I got to know people quickly.”

He accepted a position as a bench chemist at Roche where he designed and synthesized potential drug candidates in the field of inflammation. Fotouhi later led a drug discovery program in arthritis, followed by one in oncology, which resulted in a compound that is currently in Phase II clinical trials.

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In 1998, he was appointed to lead the Discovery Chemistry department and more recently he expanded his responsibilities to manage the Research and Early Development site in New Jersey and serve as head of Discovery Technologies, Roche’s global effort in structural biology and screening.

While Fotouhi concentrates on his research, he is also committed to giving back. He is a member of the boards of both the Chemistry Department and the Center for Advanced Biotechnology and Medicine at Rutgers University, as well as the board of the Newark Renaissance House, a rehabilitation center for addicted adolescents and young mothers. Balancing work, service and his family – wife Channe and 17-year-old twins David and Caroline, are all essential elements of the life that Fotouhi dreamed about.

“My family and contributions to local organizations keep me well-grounded and motivated. It’s a blessing and a gift for my life’s work to have such far reaching effects. I am proud to know that the products we develop through our innovative research at Roche have a positive influence on patients’ lives,” he said. “We have accomplished much in this field and I am excited about our progress and what we could contribute to the field of health care in the future.”

Fotouhi’s life experiences reinforce his appreciation of his alma mater. He said, “Assumption offers an environment that allows one to experience many different paths. It is a place to learn rather than compete.”

Fotouhi and his team at Roche are constantly learning about what works, and what doesn’t. They combine research and development to improve the outcomes for individual patients. Providing more targeted treatments based on new insights into how diseases arise at the molecular level is Fotouhi’s contribution to helping people live longer, healthier lives.
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