



## **25 Years and Counting! How Our Graduate Courses Have Flourished: A Tribute to Dr. Dick Burgess**

As we look back on another amazing summer of courses and workshops, we would like to take a moment to thank our dedicated collaborators and contributors. We could not offer these programs without their expertise, time commitments and energy.

In particular, we would like to thank the multiply talented and accomplished Dick Burgess. Dr. Burgess is the James D. Watson Professor Emeritus of Oncology at UW-Madison's School of Medicine and Public Health. He has served as the faculty sponsor for our Oncology 675 graduate course offerings for over 25 years.

We were inspired by Dick's upcoming [Journal of Biological Chemistry Reflections](#) paper to do some reflecting of our own. Be sure to look for this amazing reminiscence on Dr. Burgess's graduate career. While the article is intended for protein biochemists, anyone who is interested in how discovery happens in a laboratory setting should read it.

Dr. Burgess attended Caltech as a chemistry major from 1960-64 under the instruction of the likes of Linus Pauling and Richard Feynman. He earned his doctorate at Harvard, where he went to study directly after he completed his Bachelor's degree, working in the Watson-Gilbert lab – the joint research group of James Watson and Wally Gilbert. James Watson had recently been awarded the Nobel Prize for the discovery of the structure of DNA at the time. Although Wally Gilbert had been a Physics professor, his foray into the new graduate program in Biochemistry and Molecular Biology provided the perfect setting for Dr. Burgess to come into his own as an eminent protein purification expert.

It was in the Watson-Gilbert lab where he discovered many of today's common protein purification techniques. Importantly, it was also here where Dr. Burgess completed his perhaps most renowned work: the discovery of the first positive transcription factor, sigma factor, and the subunit structure of the centrally important enzyme, RNA polymerase.

At UW-Madison, Dr. Burgess's research career focused on understanding how genes are regulated both in normal cells and in cancer cells, the foundation for the work of many other scientists.



As the head of the newly-created UW-Biotechnology Center, Dr. Burgess wanted to develop a course for graduate students that would allow them to spend some time immersed in an industry setting learning molecular biology techniques. Of the things Dick is most proud of during his career, his graduate students stand at the top, and offering a local course to serve students reflects this commitment to students. The format for this course is based loosely on the intense summers he spent at Woods Hole as a student and the over 23 years he spent as an instructor and chair of Cold Spring Harbor's Summer Protein Course. The BTC Institute was the perfect collaborator to make this vision a reality, given our ability to access both cutting edge researchers to serve as instructors, and our access to the research tools and reagents needed to perform the molecular biology work.

Over time, we have worked to evolve this initial course, and have created additional courses for graduate students based on this original model. We are so proud to have served hundreds of students over the years, giving them an opportunity for immersive, cutting edge learning experiences. Thank you to Dr. Burgess and to the many instructors who have supported these courses, as well as to our two primary sponsors: UW-Madison and Promega Corporation!

NOTE: If you missed us this summer, please plan to join us next year! Summer 2022 dates are coming soon to our website: [www.btc.org](http://www.btc.org).

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