



LIVE AS IF YOU WERE TO DIE TOMORROW,
LEARN AS IF YOU WERE TO LIVE FOREVER
ANIRUDDHA MITRA

Aniruddha Mitra is a biologist interested in the behavior, physiology, and ecology of insects. His education was in zoology, and for his Ph.D. (Indian Institute of Science, Bangalore) he worked on how the queen of a species of social wasp (*Ropalidia marginata*) maintains control over the workers of her colony. Afterward, he worked for one year at Washington University, St. Louis, Missouri, looking at the neurotransmitters, neuroanatomy, and behavior of the fruit fly *Drosophila*. Then he worked for two years at CNRS, Gif sur Yvette, France, looking at the neurophysiology and behavior of chemosensation in *Drosophila*. He spent six months at the College for Life Sciences at Wissenschaftskolleg, reading about chemosensory systems in different organisms and exploring artificial chemosensors. Presently he is working as an Assistant Professor in Zoology at Shoolini University, Solan. Along with teaching, he has started working in areas related to chemosensation in insects, biodiversity, and applied entomology. – Address: Shoolini University of Biotechnology and Management Sciences, Block A, Room no. 405-A, Bajhol, PO Sultanpur, Solan 173229, Himachal Pradesh, India. E-mail: mitra.aniruddha@gmail.com.

I had been hearing about the Wissenschaftskolleg for the past few years from people associated with this institute, also having had the chance to meet and interact with some of them, like the present rector, while pursuing my Ph.D. at IISc, Bangalore. The impressions I got always stimulated my interest in and imagination about life at the Wissenschaftskolleg and how such a life is conducive to any kind of intellectual pursuit. I had not heard about any other institute of a similar kind. Hence, it was a great pleasure and

privilege to receive a Fellowship from the College for Life Sciences to spend a few months at the Wissenschaftskolleg.

It was a cold day at the beginning of January 2016 when I arrived at Berlin, but the warm, welcoming response I received immediately on arriving at Wiko enthused me with positive energy! As I started getting used to the new life, within a week it started snowing. Excited to see a big lake completely frozen over, I tried walking over the frozen lake and, not very far from the edge, broke through the ice and submerged one leg in the freezing waters of the Dianasee! During the first three months, I was confined mostly indoors due to the cold, and that gave me a good opportunity to focus on reading on my review topic of comparing chemosensation in different groups of organisms. It was also a lovely experience to watch the snowflakes and the grey surroundings through my window while I could sit comfortably at my work inside the room. Over the course of the next few months, I progressed well on my quest to study and acquire a broad knowledge of chemosensation, and the excellent library facilities at Wiko helped me immensely in my quest. Although I had some background of working on chemosensory systems in some insects on the level of behavior and neurophysiology, I did not have good knowledge of chemosensory systems in other kinds of organisms. So it was intellectually satisfying to get the chance to learn about and contemplate for long hours the different kinds of chemosensory systems used by different groups of organisms. It was also interesting to learn about the different kinds of chemosensory receptors present in different groups of organisms, which gave me some understanding of the evolution of chemosensation through the evolution of the receptors that detect different chemicals. Based on the detailed information I could gather during my stay at Wiko, I expect to complete a comprehensive review article looking at chemosensation over a wide range of taxa in the near future. I also read about and explored the idea of developing man-made chemosensors using the principles of biological chemosensation. This helped to clear many doubts I had in this area and made me realize the difficulties and pitfalls of trying to materialize such an idea in reality.

Apart from gathering knowledge and making notes on my specific topic of interest, I also completed a manuscript based on my previous work, and I wrote and submitted a grant application. I was also able to connect with other researchers working in the area of insect chemosensation, visit the Biozentrum at the University of Würzburg to give a talk on my work, and explore possibilities for future collaboration. I also prepared and submitted numerous job applications, as I was looking for a faculty position, preferably in my

own country, and finally I was able to get one, which brought a sense of relief by reducing the uncertainty about my future! Of course, apart from working at my own academic pursuit, it was a fascinating experience to interact with the other Fellows of the College for Life Sciences, all young researchers connected to biology, and gain many interesting insights about a variety of topics connected to animal behavior, evolution, and human psychology. It was good that we, the Fellows of the College, were able to present our work to the entire Wiko audience and to receive both critical and encouraging feedback on our presentations. The general discussions with the other Fellows at Wiko and the weekly morning seminars where different Fellows presented their own work were inspiring and invigorating. I could well appreciate the underlying philosophy of Wiko, where participating in discussions with people from disciplines very different from one's own helps to open one's mind to the broader picture of the different ways of pursuing knowledge and intellectuality and enriches one's thoughts with the plethora of different perspectives on the same thing. Even listening to others expounding on a topic helped me a lot to better understand the broad philosophy of how the collective human pursuit of knowing different things helps to advance our collective consciousness and enrich human culture. There were also many biologists at Wiko, there being two Focus Groups, one on animal coloration and another one on pain, and it was an added privilege to get to interact with other experienced biologists and to attend some of the seminars and symposia they organized.

An interesting and useful experience was a visit to the Konrad Lorenz Institute in Vienna organized by the College for Life Sciences for the Fellows of the College. I found the Konrad Lorenz Institute to be like a small version of Wiko specializing in evolutionary biology. It has a very stimulating environment, and we had many interesting discussions with the fellows of the institute. We also had a formal discussion exercise, where we proposed different questions and then, based on popular choice, a few questions or topics were selected for discussion over a whole day. Luckily, the topic I had proposed was selected, and it was a great experience to discuss with everyone the different kinds of biases that affect the human mind and that may influence the quest for objective scientific truth about how things work in this universe in general. Based on the different kinds of feedback received in the discussion session, I expect to write an essay on this topic, as it should be of general interest to anyone connected to the pursuit of knowledge in science. The take-home message was that it might sometimes be good to have differences of opinion and different "biased" ways of investigating phenomena, to understand the complete

picture of the structure and function of everything in the universe. The importance of institutes of advanced study, which help to bring together people with different biases to reach a collective improvement of the perception of truth, was thereby highlighted. We also had another short workshop on the ways of communication in humans, and it was interesting to learn about the various nuances of communication in a formal way. The added advantage was to get to see the beautiful city of Vienna!

As spring came up, the fresh green leaves added exquisite beauty to Grunewald and its surroundings. I could venture outdoors more often and enjoyed walking through the woods near Wiko. It is indeed very nice that Wiko is located in Grunewald and not in the central part of Berlin. This gives the added advantage of being surrounded by an abundance of natural beauty, which I think is helpful for adding tranquility to the mind and maybe tends to inspire the philosopher inside everyone! My apartment in the Villa Walther was also located in a scenic spot, next to a big pond, and it was lovely to enjoy the view of the trees surrounding the pond, all through spring and summer. I could also watch swans and other waterbirds swimming on the pond, and sometimes I could observe the antics of a fox that used to roam about near the pond, maybe looking for an opportunity to hunt a bird! All this rekindled the passion for the visual arts that I used to have when I was younger, and I was happy after a long time to get to devote some time to art and photography. The combination of nature and academic freedom, along with good living arrangements, stimulating discussions with the Fellows and, of course, the good food served during lunch, and especially the fine food and drinks during the weekly dinner, makes Wiko the best place for academic work! The only thing I sometimes missed was laboratory work, as I had mostly been involved in experimental biology before. But the things gained certainly were far more than enough to make up for any sense of loss. I also got to explore Berlin and its many museums, learning about German history and how it relates to various changes in European and world history. I could also visit some other cities in Germany, which helped me to better appreciate the history, architecture, and culture of this country. We also had a guided tour of the Natural History Museum by a former Wiko Fellow, and this helped me remember some of the comparative anatomy aspects I had studied more than a decade back as a student of zoology. Along with this enjoyment of extracurricular and co-curricular activities, my studies of chemosensation also progressed well, and I started pulling together my threads of thought on how to organize a review article on this topic.

Six months were soon over, and it was time to leave. In the end, I could only wish that perhaps I could have had some more time to spend in Wiko, so that I could attain more academically and enjoy life to the fullest for a little more time! Surrounded by the beautiful environment of Grunewald, the intensely stimulating intellectual environment in the beautiful buildings of Wiko makes the institute one of a kind. I could not find any negative aspect of Wiko worth mentioning. The only thing one might mention is that some of the seminars were a bit too esoteric, and so maybe there needs to be a mechanism to give formal feedback (anonymously if necessary) to the speaker about how well the talk could be understood by people from other disciplines.

One of the goals of the Wiko is to foster cross-disciplinary thought and engagement, and I can definitely say that my stay at Wiko brought out to some extent the philosopher lurking in my mind! My Wiko experience broadened my attitude toward life. Academics nowadays, especially those in science, often keep bothering about the impact of their work. During my stay at Wiko, it dawned on me how all such things are meaningless, and even the success one attains in life is to some extent meaningless. How many people will cite a scientist's work, say, one hundred years after the scientist is dead? It is only a very few who can do seminal work that will be remembered for centuries, and whether one can make a really path-breaking or paradigm-shifting contribution depends on luck. So instead, if one just enjoys what one is doing and tries to improve the quality of the work, irrespective of how much impact it makes, that could be a much more happier and satisfying way of doing justice to one's profession. Such thoughts have already been expressed many times by academicians, but one really has to feel it from the inside to realize that they are not empty words.

I think Wiko should remain as it is, a haven for academicians and intellectuals. Along with enjoying life greatly, one gets the opportunity to advance one's knowledge as much as one wants. I think the anonymous quote I have put as the title of this article summarizes the philosophy of life one can experience in Wiko – "Live as if you were to die tomorrow, learn as if you were to live forever."