Acceptance of the Dana Medal of the Mineralogical Society of America for 2020

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Receiving the Dana Medal is a great honor and encouragement, as well as a responsibility to foster scientific collaboration and a reminder that much exciting science remains to be done. I am well aware that my being here is due to the work and generosity of many, and for that I deeply thank the Mineralogical Society of America, the committee, and of course the courageous colleagues who put forward and supported the nomination. It is remarkable that the MSA did not shy away from awarding the Dana Medal to both individuals in a dual career couple.

There were no signs in my family history or in my early education that destined me to become a scientist or an academic, and it is always instructive to reflect on how this happened. Curiosity and resilience were probably distilled in me early on by parents, teachers, and events. Then, the scientific education I received at Torino University opened up a new world of possibilities. A scientist’s career is a combination of hard work, opportunities, and serendipity; having made certain decisions, sometimes driven by instinct more than careful reasoning, having met certain colleagues and had access to instruments and samples at particular stages of my career have made all the difference! I always had the fortune to be part of stimulating research environments from the Ph.D. at ETH-Zürich, to the scientific growth at the Australian National University and now at the Universities of Bern and Lausanne. I will forever be grateful to the teachers and colleagues that have instilled in me the wonder for natural processes.

I am by nature an empirical scientist, and most of my research has thrived on investigating exceptional and interesting natural samples. I was guided and collaborated with experts that knew field geology and could provide the context and the best materials for whatever hypothesis I wanted to test; so many colleagues were generous with their samples and field knowledge! I learned to love the Alpine orogeny thanks to Roberto Compagnoni, Dieter Gebauer, Marco Beltrando, Jörg Hermann, Bernardo Cesare, Alfons Berger, and many others. When I moved to Australia, I had to realize that geology in the outback is so much different. The patience and support of Ian Buick, Ian Williams, and my down-under colleagues were very precious. Sumit Chakraborty is responsible for having revealed to me during discussions and fieldwork the fascination of Himalayan geology, a topic that I then cultivated also with other collaborations. The possibility to visit or at least work with samples from far away places such as Turkey, Brazil, Alaska, China, India, and Antarctica has truly opened my horizons and was pivotal for my geological understanding.

Something I will be forever grateful for is that I had unlimited access to the most advanced instruments; they are intimidating but extremely useful. At the SHRIMP laboratory and now the SwissSIMS I have learned my analytical skills and much extended my research directions. I would have struggled at the first hurdle without the assistance of people like Ian Williams, Trevor Ireland, Peter Holden, and lately Anne-Sophie Bouvier; their analytical wizardry and geochemical knowledge has supported me all the way. Because I was in such exceptionally well-equipped laboratories, I could combine ion microprobe with LA-ICP-MS from the early days with Detlef Günther at ETH-Zürich, and under the expert guidance of Charlotte Allen at ANU and now with Thomas Pettke in Bern. And this was not all; I could even access the experimental laboratory at ANU thanks to the support of David Green, Jörg Hermann, and Hugh O’Neill. Combining these techniques, I could explore the partitioning of trace elements between accessory minerals and melts, and I had to learn how much it takes to obtain a reliable experimental result.

What makes me the proudest in my scientific journey so far are the talented young scientists and students I had the pleasure to work with. Their enthusiasm, determination, doubts, and growth are a marvel to witness and an everyday stimulus to always give the best. Thank you to all those who shared their path with me.

I have learned that science is made of little steps; some are more novel, some are more successful, others may become insignificant. The true size of those steps, be it minuscule or grand, can often only be assessed after a while, once the scientific process has done its course. What matters is that we do every step with the same rigor and enthusiasm and with the conviction that it is a step in the right direction.

Scientific life in the past year was marked by lockdowns, restrictions, and new challenges that have limited not only physical mobility but also the scientific creativity of many of us. I did not have the pleasure to celebrate this medal with colleagues at the GSA in 2020, but I hope to meet those precious people again very soon on the science circuit, to discuss, exchange, create, and continue those activities that make scientific research particularly enjoyable.