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International Scholar Program Offers a World of Experience

Fadi Abdeljawad

Fadi Abdeljawad, 2019 JIM/TMS Young Leaders International Scholar, with JIM President Satoshi Sugimoto (left) and JIM Secretary General Hideaki Yamamura (right) at the JIM 2019 Annual Spring Meeting.

TMS FOUNDATION
JIM/TMS Young Leaders International Scholar Award

Fadi Abdeljawad

I was introduced to Japan at a very young age. I grew up in a part of the world where *Captain Tsubasa,* the animated Japanese soccer *manga* series, was every child's favorite TV show—it was, and still is, one of my favorite shows. I was deeply honored to be selected as the 2019 Japan Institute of Metals and Materials (JIM)/TMS Young Leaders International Scholar. I would like to extend my deep appreciation to the TMS Foundation and JIM for making my visit to Japan possible. In addition to attending the JIM 2019 Annual Spring Meeting, which was held at the Tokyo Senju campus of Tokyo Denki University, my trip included visits to Kyoto University, where Nobuhiro Tsuji, professor, Department of Mechanical Engineering, hosted me, and to the University of Tokyo, where Yasushi Shibuta, associate professor, Department of Materials Engineering, was my host.

My trip to Japan started a few days after the TMS 2019 Annual Meeting & Exhibition in San Antonio. I flew back to Clemson, South Carolina, for a few days before departing to Japan's Narita airport, a fifteen-hour flight from the Dallas Fort Worth airport. Upon my arrival, I took the airport express to the Tokyo station, then the shinkansen-Nozomi bullet train to Kyoto, where I spent the night.

The next morning, I met Reza Gholizadeh from Tsuji's research group, who arranged a tour of the Kyoto University campus and several experimental facilities that are focused on materials synthesis, processing, and

Fadi Abdeljawad (front row, third from right) with members of Nobuhiro Tsuji's (front row, fourth from right) research group at Kyoto University.

Abdeljawad (sixth from left) also spent time with members of Yasushi Shibuta's research group at the University of Tokyo. Among the group members pictured are: Shibuta (fifth from left); Tomohiro Takaki (fourth from right); and Naoya Shibata (first from left).

testing. Tsuji then arranged for me to give a presentation in the Department of Materials Science and Engineering on my research work on atomistic and phase field modeling of grain boundary solute segregation in metals, which is sponsored by U.S. Department of Energy, Office of Basic Energy Sciences, Division of Materials Sciences and Engineering. I met with members of Tsuji's research group and discussed work on the synthesis of nanocrystalline materials. In the evening, I took the shinkansen train back to Tokyo to prepare for my next stop, the University of Tokyo.

The next day, I met with Shibuta, who arranged a meeting with Tomohiro Takaki, a professor of mechanical engineering at the Kyoto Institute of Technology. Again, I was invited to give a talk about my current research efforts and afterward, we engaged in several discussions on the modeling techniques of metal solidification and grain growth kinetics.

After I concluded my visit to the University of Tokyo, I went back to the Senju district in Adachi for the JIM meeting, which was held from March 20–22. On the first day of the meeting, I was introduced to the attendees during the opening and awards ceremony by Hideaki Yamamura, the Secretary General of JIM. I am deeply grateful to Yamamura for his assistance during the planning stages of my trip and in navigating the elaborate network of trains and subways in Tokyo. On Thursday, March 21, I gave an invited presentation entitled, "Atomistic and Mesoscale Modeling

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—Fadi Abdeljawad

Hidehiro Yoshida (left), professor, University of Tokyo, presents Abdeljawad with the 2019 JIM/TMS Young Leaders International Scholar certificate during the JIM Annual Spring Meeting.

of Nanoscale Sintering: Application to Direct Ink Write Additive Manufacturing," in the Powder and Sintering Materials session. At the conclusion of my talk, I was presented with the JIM/TMS Young Leaders International Scholar certificate, acknowledging my participation in the program and attendance of the meeting. My trip to Japan allowed for great research discussions and afforded me the invaluable opportunity to expand my professional network.

After the meeting, I was able to make some additional stops before coming back home. I was fortunate enough to visit Japan when the cherry trees started to blossom, providing me with an abundance of splendid views of white and pink *sakura*. The Fushimi Inari Taisha shrine in Kyoto was a magnificent place to visit, and the bustling Nishiki Market was also a must-see stop. For seafood enthusiasts—the world's largest Tsukiji fish market near the Ginza neighborhood in Tokyo is a superb place to spend some time.

I have always enjoyed getting lost in big cities and there is no better place to do so than Tokyo. Japan is a country where tradition and modernity meet in a harmonious coexistence; it is a place that demands one's respect. I enjoyed many experiences during my visit to Japan and created great memories there. I am deeply thankful to the TMS Foundation and JIM for making my visit possible and to Tsuji, Shibuta, and Takaki for hosting me.

Fadi Abdeljawad is an assistant professor at Clemson University and the 2019 JIM/TMS Young Leaders International Scholar. He is also the recipient of the 2015 TMS Functional Materials Division Young Leaders Professional Development Award.

Meet the 2019 JIM Representative, Sakiko Kawanishi

Sakiko Kawanishi (pictured, left) presented her paper, "An Approach for Solubility Measurement of SiC in Molten Silicon and its Alloy by Real-Time Interference Observation," at the TMS 2019 Annual Meeting & Exhibition, held March 10–14, in San Antonio, Texas, as the 2019 JIM representative in the Young Leaders International Scholar Program. Her travel was supported by JIM, just as TMS and the TMS Foundation support one early career member to travel to JIM's Annual Spring Meeting. Following the conference, she planned to visit labs at the Massachusetts Institute of Technology and at Stony Brooke University in New York. Kawanishi is currently an assistant professor in the Institute of Multidisciplinary Research for Advanced Materials at Tohoku University.