

Featured: Sylvie Derenne

9/04/2020

PRE-SCRIPT

In this episode of BIOmarkers, the series that explores the history of organic geochemistry, we speak with Dr. Sylvie Derenne, winner of the 2019 Alfred Treibs Award at the International Meeting on Organic Geochemistry and senior scientist at the French National Center for Scientific Research. In our interview with Dr. Derenne, she tells us about how she ended up in organic geochemistry, her research, and what she thinks makes a good organic geochemist.

SCRIPT

Fatima Husain: Welcome to BIOmarkers, an audio series that archives the oral history of organic geochemistry. I'm your host, Fatima Husain, and I'm here today with my series co-creators and fellow organic geochemists Angel Mojarro and Juliana Drozd.

Juliana Drozd: For today's episode, we spoke with Dr. Sylvie Derenne of the French National Centre for Scientific Research, also known as CNRS. Sylvie was awarded the 2019 Alfred Treibs Award at the International Meeting on Organic Geochemistry. She is a distinguished senior scientist at CNRS, and works to characterize organic materials found in natural environments, including meteorites.

Angel: We spoke to Sylvie in between sessions at the 2019 IMOG.

Sylvie: my name is Sylvie Derenne. And I am an organic geochemist involved in the molecular structure of organic matter in a very large type of environments. And using a large combination of analytical techniques. I think this is what is the best defining myself.

Fatima: But, Sylvie didn't always have her eyes set on organic geochemistry specifically.

Sylvie: I think it's not the most common way for all the organic geochemists here. Because in fact, as I said yesterday in my talk, when I have been hired in CNRS, I knew nothing about organic geochemistry. I had a PhD in organometallic chemistry, and there was a position at CNRS in organic geochemistry, so I applied for it and based on my record in organic chemistry, I have been successful. But I knew I just read the (tissue?) and (Veldt?) and (genome?) book that you may not know because there are books that have been edited in the 80s. So I just read this before the competition and before the interview. This was the only thing I was knowing on organic geochemistries. It's just because there was a position open in this field. And it was a way for me to enter CNRS.

Sylvie: I am a real chemist and I receive samples from all over the world in the lab. But I don't go so much out of the lab, except for conference, of course, that But no, no field trips, unfortunately. But I think that I wouldn't be efficient on the field. So it's not it's not so bad like it's better that geologists or petrologists people who knows the field go to the field and bring back good samples.

Juliana: So — back to CNRS. Sylvie began her organic geochemistry career with kerogen.

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Angel: Kerogen is very difficult to define, but luckily we have an expert here with us:

Roger: that insoluble fraction of organic matter in sedimentary rocks — and is by no means easy to work with.

Sylvie: So my my first two works, we (unintelligible) were to investigate to kerogen formation. And I think that we were pioneers in putting selective preservation pathway as a important formation pathway of kerogen.

Kerogen formation was quite important for petroleum systems and so we we were in connection with (total?) and IFP and but because at that time, ???? total were separated but finally This was oil increases and interest in oil was decreasing. And at the same time, environmental questions were increasing. So this was why we moved from (Mostly?) deep geochemistry with sedimentary rocks and things like that to what more recent sediments and soil. So this is a shift that was really wanted. And at the same time, as I said yes to the colleague, who was investigating organic matter in meteorites, who wanted to investigate organic matter in meteorites. He was searching for an organic geochemist. So he went to IFP, thinking that he will find somebody at IFP working in that but IFP has of course Some applied constraints. And so people from IFP say, No, we can't take this on our own. And so he directed him to me. And I think this is the most exciting thing I have done since that time.

Juliana: And as always, we ended our conversation with an important question: what makes a good organic geochemist?

Sylvie: liking what you are doing, I think it's the most important point because you you do well what you like. Don't hesitate to to repeat and repeat. And to avoid any bias or false result. As in any kind of science, I seem to be rigorous and a hard worker. But I think there's no no specificity to organic geochemistry. That's for all sciences its the same If you want to go it To be a good scientist, you have to have these qualities. And first of all to like what you do.

Fatima: Thanks so much for joining us today, and a sincere thank you to Dr. Sylvie Derenne for speaking with us and sharing his insights.

Juliana: And now for a special announcement:

Roger: Hello, this is Roger Summons. If you are enjoying the BIOmarkers Podcast and would like to stay up to date with all of our upcoming episodes, you can now follow us on Apple Podcasts, Google Podcasts, Spotify, or wherever you listen to your favorite shows.

Fatima: Thanks, Roger. Next time, we'll speak with Simon Brassell. To tune in, go to [summons dot m-i-t dot edu](mailto:summons@mit.edu) backslash BIOmarkersPodcast. BIOmarkers is produced in the Summons Lab at the Massachusetts Institute of Technology.

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