



The Clay Minerals Society

www.clays.org

THE PRESIDENT'S CORNER



Lynda B. Williams

MANY THANKS TO THE EXECUTIVE COMMITTEE ... and to all the members of our council whose volunteer commitments drive the inner workings of the Clay Minerals Society (CMS). In my last address to you as President of the CMS, I want to reiterate my thanks to all of you who so consistently donate your time to promote the work and successful functions of our society.

Meet the Executive Committee of the Clay Minerals Society 2018–2019



At the center of the photo collage is Mary Gray, CMS Office Manager. She is the glue of our community who gracefully guides us through the required annual events and has the institutional knowledge to keep us on track. Surrounding her desk are the steadfast contributors to the real work that is fundamental to our existence: Joe Stucki and Kevin Murphy are the mainstays of the journal, *Clays and Clay Minerals*, and of the society. The journal is the foundation of our scientific endeavors, and it requires incredible dedication to keep it modern and responsive to the evolving publication needs of our community.

The dedication of Warren Huff, secretary for 14 years, and Paul Schroeder, treasurer for 5 years, on the upper left and right arms of the star, represents an enormous time sacrifice and guidance built on careers full of experience in clay science, community building, and inclusiveness. We routinely turn to these colleagues for their insights and could not function without their shared experiences.

At the tips of the star are the annually rotating crew of past president (Dougall McCarty), president (Lynda Williams), and, at the sturdy legs, are vice president (Andrey Kalinichev) and vice president elect (Bruno Lanson). This four year presidential track allows incoming leaders the opportunity to learn how the CMS functions and to appreciate how those wise leaders who laid the foundational guidelines and by-laws could foresee so many of the challenges that a scientific community would encounter, and to add our own insights as a timestamp on the evolution of this organization.

In my opening remarks as incoming president, I spoke of the Clay Minerals Society as my intellectual home, the place where I feel most comfortable sharing new ideas and gaining insights from the valuable

experiences of colleagues. I have been a member for 35 years and, in those years, I have always felt encouragement and comradery at the annual meetings. It is the strength of those who step up to lead, to listen, and to learn from the community that has made the Clay Minerals Society a guiding influence on so many. It is my sincere hope that this small, but dedicated, group will continue this path toward a rewarding future.

If you have not yet joined the Clay Minerals Society, we welcome you to be part of this!

Go to: <https://cms.clays.org/membership.html>

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President, The Clay Minerals Society 2018–2019

STUDENT RESEARCH SPOTLIGHT

Congratulations to Holly Turner from the Natural History Museum, University of Oslo (Norway) and to Mark Peterman, Mississippi State University (USA) for each winning a 2018 CMS Student Research Grant!



Holly Turner studies the record of **climate change as revealed in clay minerals across the Jurassic–Cretaceous boundary (Utsira High, North Sea)**. During the Late Jurassic–Early Cretaceous, the humid climate of northwestern Europe was punctuated by a widespread arid phase, but the temporal and geographic extent of this climatic shift is poorly understood.

The clay mineral kaolinite typically forms under hot and humid weathering conditions, thus, the first humid phase of the Early Cretaceous is suggested by its abundance. The return to humid conditions after the arid phase is widely believed to have occurred later at higher latitudes in northwestern Europe. At ~30°N, kaolinite is known to have reappeared in the clay mineralogical record during the early to mid Berriasian (~142 Ma). However, at ~40°N in well 16/3-4 of the North Sea we find an absence of kaolinite until the late Berriasian (~144 Ma).

With CMS funding, a high-resolution age model will be produced for another section in the North Sea coeval with well 16/3-4. The reappearance of kaolinite in this clay mineral assemblage will be precisely dated to provide definitive indication of a diachronous onset of the arid–humid climate shift in northwestern Europe.



Mark Peterman evaluates **the bactericidal efficacy of clay minerals for application in veterinary medicine**. His initial investigations have focused on a virulent strain of *Aeromonas hydrophila* that impacts the food animal production of channel catfish (*Ictalurus punctatus*) in eastern Mississippi (USA). Mark's research has confirmed the bactericidal properties of clay minerals previously identified by Dr. Lynda Williams (Arizona State University, USA) and Dr. Keith Morrison (Lawrence Livermore National Laboratory, California, USA) and has identified new clay mineral formations that are bactericidal against *Aeromonas hydrophila*. Mark is currently working to further characterize the bactericidal clay-mineral samples that he has collected, search for new ones, and screen these against multiple pathogenic bacteria in partial fulfillment of the research requirements for a PhD in veterinary medical science at Mississippi State University's College of Veterinary Medicine.

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