



## Sergei Boudko, PhD

Sergei Boudko is an Assistant Professor in the Department of Medicine, the Division of Nephrology at Vanderbilt University Medical Center, as well as an Assistant Professor in the Department of Biochemistry at Vanderbilt University. He is a mentor in the Aspirnaut™ program (K-20 STEM Pipeline for underserved and diverse youth from rural areas) and an Associate Director of the Center for Matrix Biology at the Vanderbilt University Medical Center.

Sergei earned his Ph.D. at the University of Basel, Switzerland in 2003, studying the folding of collagen triple helix from single and trimerized chains in the laboratory of Prof. PD Jürgen Engel at Biozentrum. He then spent two years in the laboratory of Prof. Michael Rossmann at Purdue University working on viral proteins

and learning structural methods. In 2006, Sergei joined the group of Prof. Hans Peter Bächinger at Shriners Hospital for Children, OR, where he re-engaged his research on collagen folding with an emphasis on trimerization domains and the development of tools for producing functional collagen fragments.

Sergei's current projects are focused on deciphering molecular mechanisms of assembly, stability, and function of extracellular matrix proteins using structural methods to better understand the molecular biology of kidney diseases and develop new therapies based on protein replacement and pharmacological chaperones. He is a member of the American Society for Matrix Biology, the American Society for Biochemistry and Molecular Biology, and the American Society of Nephrology. If elected to the council of ASMB, Sergei will work to integrate structural biology communities into ASMB and bring educational resources to the members.

**Personal Statement:** I have been a member of the ASMB society since 2010. Our society provides a very stimulating exchange of ideas, updates on the most recent progress in the field, and ways to communicate and learn from leaders in their specific fields. Of special importance, ASMB cares about young scientists learning the field and getting known, thus providing continuity in the dynamically developing Matrix Biology world.

Our society does a great job by bringing people together (via meetings and workshops), providing opportunities to publish research (via journals, Matrix Biology, and Matrix Biology Plus), recognizing researchers (via Investigators awards), mentoring young investigators (mentoring breakfasts), keeping us up to date with the recent advances and news (newsletters), and helping students (poster and travel awards). I feel that there is also a need for an educational role in the ASMB. Despite growing interest in Matrix Biology, there are no courses available for it. On the other hand, our society has numerous researchers and educators who publish and edit fantastic reviews and read different courses to students. I believe that an online course on matrix biology from very basic principles to the status and challenges would be highly appreciated by not only students but, also, anyone interested in Matrix Biology. I would highly promote and support the development of such a course.