



UNIVERSITÉ DE  
MONTPELLIER



CRBM-BIOLuM Seminar on Thursday, **June 13<sup>th</sup> at 11:00 am** Marcel Dorée seminar room

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**University of Colorado**

## **Tyranny of the minority: divergent tubulins & motors reshape microtubule networks**

### **Abstract**

The goal of his research program is to understand the molecular regulation of microtubule networks, and how microtubule defects contribute to human disease. Over the past twelve years, his lab has established expertise in investigating the basic mechanism of microtubule dynamics and how molecularly diverse tubulin subunits impact the structure and function of microtubule networks in contexts ranging from mitotic spindle formation to mammalian brain development. During that time, they have focused our efforts on an emerging problem: mutations in tubulin isotypes that are associated with human brain malformations; known as 'tubulinopathies'. Finally, to increase public awareness and involvement in research, he has established outreach programs to engage local high school students, teachers, and undergraduate students

### **Selected publications:**

- Wethekam LC, Moore JK. [Tubulin isotype regulation maintains asymmetric requirement for  \$\alpha\$ -tubulin over  \$\beta\$ -tubulin](#). J Cell Biol 2023
- Hoff KJ, Aiken JE, Gutierrez MA, Franco SJ, Moore JK. [TUBA1A tubulinopathy mutants disrupt neuron Morphogenesis and override XMAP215/Stu2 regulation of microtubule dynamics](#). Elife 2022

