

# Anatomist is fleshing out dinosaur heads, reaching people about science

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Accurately depicting dinosaur anatomy has come a long way since the science fiction films of the 1960s. In celebration of the American Association of Anatomists' (AAA) 125th anniversary, renowned dinosaur anatomy expert Dr. Lawrence Witmer will deliver a lecture reflecting on the AAA's first President Joseph Leidy, also a preeminent American dinosaur paleontologist, and the modernizing of prehistoric bones.

Witmer will show how the Visible Interactive Dinosaur (VID) project recreates soft-tissue systems within a 3D [digital environment](#). VID, funded by the National Science Foundation, is a global project that aims to digitally put back all of the tissues that time has stripped away to create the most realistic renderings of [dinosaurs](#) science has seen.

"Nature has left us bones," said Witmer. "We need to flesh them out, put back muscles, nerves, sinuses, and animate the skeleton. VID does that. We look at animals today, starting with dinosaur descendants – birds and crocodiles – and we study them to have an understanding of how the dinosaur jaw worked, and what their [brain structure](#) was," he added.

"Hollywood has been bringing dinosaurs to life for years, but as scientists we can do it in a controlled way to see how these anatomical systems actually work," said Witmer. "Dinosaurs present interesting problems; the solutions help explain scientific issues in physiology and [anatomy](#), such as how does a 50-ton animal move around? How did they pump blood to a head 30 ft away?" The answers inform today's anatomy

questions.

Dr. Witmer sees the work of VID as having a dual purpose—helping other paleontologists and educating, even inspiring, the public about physiology and anatomy.

"The study of dinosaurs is important because it allows us to reach people about science. The fact is, dinosaurs are popular but science is still considered 'hard' by many people. So one of the missions of VID is to use dinosaurs as a tool to excite people about anatomy and science. We lure them with dinosaurs and sneak in cool science," he said. The result is a win for both scientific advancement and [science](#) advocacy.

Witmer will discuss the advanced 3D imaging of VID at a plenary session on Monday, April 22, 10:30 am-12:30 pm at Experimental Biology in Boston.

Provided by Federation of American Societies for Experimental Biology

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