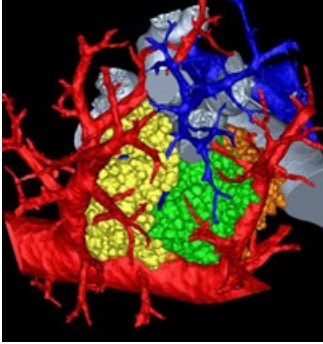


A mammal lung, in 3D

A research team led by the University of Iowa has created the most detailed, three-dimensional rendering of a mammal lung.



Amidst the extraordinarily dense network of pathways in a mammal lung is a common destination. There, any road leads to a cul-de-sac of sorts called the pulmonary acinus. This place looks like a bunch of grapes attached to a stem (acinus means 'berry' in Latin), writes Richard C Lewis, University of Iowa.

Scientists have struggled to understand more specifically what happens in this microscopic, labyrinthine intersection of alleys and dead ends. To find out, a research team led by the University of Iowa created the most detailed, three-dimensional rendering of the pulmonary acinus. The computerised model, derived from mice, faithfully mimics each twist and turn in this region, including the length, direction and angles of the respiratory branches that lead to the all-important air sacs called alveoli.

The blood vessels feeding the acini are then added with the arteries shown in blue and the veins in red. 'The imaging and image analysis methods described here provide for branch morphometry at the acinar level that has not been available previously,' the researchers write in the paper, published recently in the online early edition of the *Proceedings of the National Academy of Sciences*. [Read the complete article](https://www.bizcommunity.com).

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