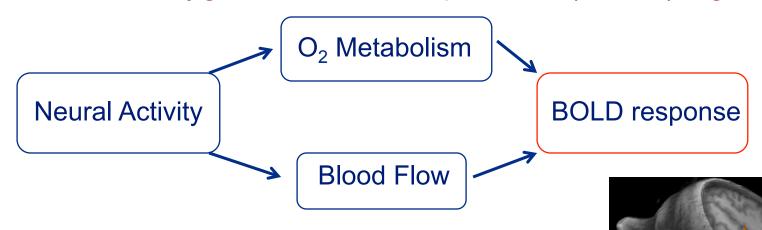
## The blood oxygenation level dependent (BOLD) signal

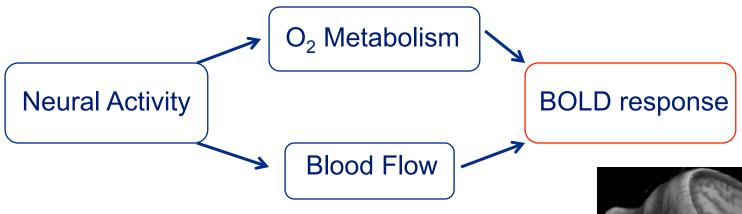


## Physiological basis of fMRI

- Development of quantitative methods to measure blood flow and oxygen metabolism
- Modeling O<sub>2</sub> transport, neurovascular coupling, and the BOLD effect
- Experiments in humans looking at the relationships between neural activity, blood flow and O<sub>2</sub> metabolism

**Richard Buxton** 

## The blood oxygenation level dependent (BOLD) signal



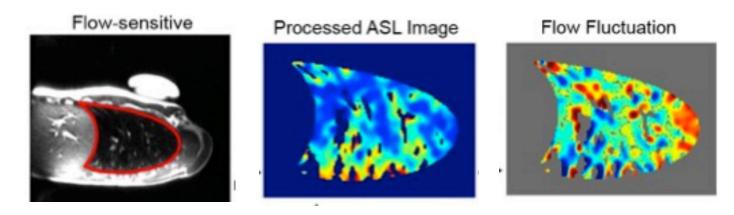
Radiology Collaborations

Anna Devor David Dubowitz Tom Liu Eric Wong MD/PhD Students

Val Griffeth Aaron Simon Eulanca Liu

**Richard Buxton** 

## Dynamics of blood flow in the human lung



Development of methods to measure the spatial/temporal dynamics of pulmonary blood flow at a scale of ~1 cm<sup>3</sup> and 5 sec

Radiology

Collaborations MD/PhD Students

Sue Hopkins Amran Asadi Kim Prisk Eric Geier

**Richard Buxton**