

Propositions

Accompanying the thesis:

Wall Shear Stress and Atherosclerotic Plaque Progression

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1. Wall shear stress environment in the murine vasculature can be surgically manipulated to induce plaque development.

Thesis chapter 2

2. Selection of contrast agent to image murine vasculature not only needs to take into account its signal intensity, but also its biocompatibility with the murine body system, or its potential interference with disease progression.

Thesis chapter 3

3. During plaque progression in the common carotid artery of the atherosclerotic mouse, absolute WSS decreases over a lumen-intruding plaque, counteracting our previous belief that WSS would increase during disease progression.

Thesis chapter 4

4. Ivabradine lowers heart rate in atherosclerotic mice by increasing the diastolic duration of the cardiac cycle.

Thesis chapter 5

5. The increase in peak blood flow during systole due to Ivabradine fails to alter TAWSS in the common carotid artery of atherosclerotic mice.

Thesis chapter 6

6. The greatest challenge to any thinker is stating the problem in a way that will allow a solution.

Bertrand Russel

7. All models are wrong but some are useful.

George Box

8. Differences of habit and language are nothing at all if our aims are identical and our hearts are open.

J.K. Rowling

9. Sometimes there is no black or white, but only shades of greys.

10. Venire, videre, vincere. (To come, to see, to conquer.)

11. Never stop learning.