**Biological Economics and Decision Making**

**Chew** Soo Hong and Richard **Ebstein**

The biological revolution of the past 50 years has positioned modern science to tackle one of the deepest and most vexing problems of the modern era – the biological basis of human choice. This is the focus of Biological Economics and Decision Making. We will be placing the study of decision making under the lens of behavioral and experimental economics, neuroimaging, and molecular genetics. In addition, we will study deficits in decision making arising from attention deficit, depression and autism in both clinical and healthy populations. In terms of decision-making models, besides prospect theory, we will cover several axiomatic non-expected utility models including rank-dependent utility and weighted utility reinterpreted as attention utility. Applications to a range of settings in economics and finance will also be discussed.

**Reference**: Paul Glimcher (2010), *Foundations of Neuroeconomic Analysis*, Oxford

The assessment of your performance will be based primarily on your class participation and a presentation during the last class.

**Lecture schedule**:

1. Valuation: Economics, Psychology, Biology

2. Decision Theory and Experiment I

3. Decision Theory and Experiment II

4. Neurobiology of Social Decision Making

5. Applications

6. Student presentations