

Education & Outreach

Keywords: [metabolic syndrome](#) [course](#) [clamp course](#) [isotope tracers](#) [Core](#) [mouse](#) [training](#) [conscious mouse](#) [kidney](#)  
[kidney injury](#)

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## Glucose Clamping the Conscious Mouse: A Laboratory Course (September 12 - 16, 2016) Registration is now closed.

E-mail [mmpc@vanderbilt.edu](mailto:mmpc@vanderbilt.edu) to join waiting list for future courses.

- [Clamp Agenda](#)
- [Glucose Clamping the Conscious Mouse Lab Manual](#)

\*\*\* Considering the cost for set-up and time required to learn surgical procedures and the discounted price made possible by the MMPC grant from the NIH, it is better in the vast majority of cases to have our experienced staff accommodate your clamping needs. If your mice are impractical to ship or studies have a unique requirement that the Vandy MMPC cannot satisfy, learning to clamp may be the only option. If you fit into this category, consider signing up for this course "Glucose Clamping the Conscious Mouse" which is offered once per year.

## Short Course: An Organ Systems Approach to Experimental Targeting of the Metabolic Syndrome

This is an intensive two week experience. The objective of this course is to give students the tools needed to assess whether an experimental intervention alters macronutrient metabolism, energy balance, cardiovascular homeostasis or animal behavior. A combination of lectures, hands on laboratories and demonstrations and data problem sessions. More information can be obtained at [www.mc.vanderbilt.edu/diabetes/msshortcourse](http://www.mc.vanderbilt.edu/diabetes/msshortcourse)

## Isotope Tracers In Metabolic Research: Principles and Practice of Kinetic Analysis

Theory and practice of isotope tracers to study metabolism in man and animals using mass spectrometry and NMR, including isotopomer analysis for metabolic flux rates. More information can be obtained at [www.mmpc.org/shared/tracers.aspx](http://www.mmpc.org/shared/tracers.aspx)

## Experimental Techniques in Mouse Kidney Injury Workshop

A five day training course for renal scientists. This is a hands-on workshop designed to teach surgical and phenotyping techniques for commonly used mouse renal injury models. More information can be obtained at <https://www.mc.vanderbilt.edu/mkpd>