**LAB ANIMAL RESEARCH EQUIPMENT**

**Non-invasive Blood Pressure Monitor:** Measures systolic, diastolic, mean blood pressure as well as heart rate of mice and rats. The system works on the tail cuff method utilizing a sensor cuff and occlusion cuff. Can measure 1 to 8 animals and system includes software.

**Humane Animal Treadmill:** Accommodates 3 rats or 6 mice. Electric stimulus counts the number of shocks & stops at a user defined number. Features adjustable speed and inclination. Enclosed models also available for VO2/VO2 measurements.

**Ventilator:** Interchangeable pistons that allow for more accurate ventilation volumes (0.5-100mL). Pistons never require lubrication. The breath rate is adjustable (6-200 BPM) as is the inspiration/expiration ratio (H:1 to 1:H).

**Clams:** Comprehensive lab animal monitoring system, developed in collaboration with the Jackson Laboratory. Can measure up to 11 parameters including VO2/VO2, feeding, drinking, activity, and urine production.

**Microcapnograph:** Measures end tidal CO2 & N2O in small and large animals (mice, rats, dogs & horses). Under anesthesia, features a very small sample rate (5mL/min@30 BPM). Data is displayed both numerically and graphically on the front panel.

**Cardiac Output Computer:** Measures cardiac output by thermodilution. The system also measures blood pressure & EKG. Suitable for animals ranging in size from mice to horses.

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A Few HOT Articles

Reactive oxygen species in cell signaling
Victor J. Thannickal, Barry L. Fanburg
Dec 01, 2000; 279: 1005-1028

Segmental regulation of pulmonary vascular permeability by store-operated Ca2+ entry
Paul M. Chatham, Pavel Babal, James P. Bridges, Timothy M. Moore, Troy Stevens
Jan 01, 1999; 276: 41-50

Proteomics: current techniques and potential applications to lung disease
Jan Hirsch, Kirk C. Hansen, Alma L. Burlingame, Michael A. Matthay
Jul 01, 2004; 287: 1-23

Effects of fluoxetine, phentermine, and venlafaxine on pulmonary arterial pressure and electrophysiology
Helen L. Reeve, Daniel P. Nelson, Stephen L. Archer, E. Kenneth Weir
Feb 01, 1999; 276: 213-219

Mediators and modulators of pulmonary arterial hypertension
Sami I. Said
Oct 01, 2006; 291: 547-558

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APS Guide to Wine Appreciation
...or how to convince your friends that you know more about wine than you really do.

by Peter D. Wagner, MD, University of California-San Diego, La Jolla, California
(Paperback 52 pages, October 2007—Excerpts from the book are below)

Excerpts From The Book

CHAPTER 1: Preamble—general considerations

What’s a preamble? A bit like priming the pump, a pre-systolic accentuation in mitral stenosis perhaps. Fat Albert’s rocket-assisted takeoff (footnote: Fat Albert is the C-130 transport that supports the Blue Angels, and if you don’t know what a C-130 is or who the Blue Angels are, may your Dean have pity on your soul).

Point 1: Wine appreciation should be done in parallel, not in series.

Point 2: No matter what type of wine, no matter how good or bad it actually is, no matter how experienced a taster you may be (or think you may be), you must remember this (not the song): There are TWO parts to the appreciation of wines.

Point 3: Don’t be seduced by the label, or the price or (especially) the reputation of a particular wine.

Point 4: A closely parallel warning: Don’t be influenced by your fellow tasters, not even by me.

CHAPTER 2: The Process of Evaluation of a Wine—step by step

PART 1: Do you like the damn stuff or not?

PART 2: Why you like or hate the damn stuff. Science rules, sort of.

CHAPTER 3: The Most Common Grape and Wine Varieties—their features as wines

There are many styles of grapegrowing and winemaking that provide a wide array of attributes in the finished wine, even wines from the same grapes in adjacent regions. What follows describes the classical, expected, stereotypical features of each, especially as they apply to U.S. wines.

CHAPTER 4: The Conduct of a Wine-Tasting Session—how to run it

Remember, you do not need to know anything at all about wine or tasting to succeed here. All you need is courage, bravado, and a proficiency in public speaking (which you have all gotten anyway from years of teaching graduate and medical students). Remember—the more forcefully you speak, the more enobabble you use, the more your reputation grows even if you are flat out wrong in everything you say. It’s not what you say, it’s how you say it.
IN NEXT ISSUE

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Adaptation to chronic hypoxia involves immune cell invasion and increased expression of inflammatory cytokines in rat carotid body

X. Liu, L. He, L. Stensaas, B. Dinger, and S. Fidone

SURFACTANT PROTEINS
Simultaneous absence of surfactant proteins A and D increases lung inflammation and injury after allogeneic HSCT in mice

Kendra Gram, Shuxia Yang, Marie Steiner, Arif Somani, Samuel Hawgood, Bruce R. Blazar, Angela Panoskaltsis-Mortari, and Imad Y. Haddad

AIRWAY BIOLOGY AND PATHOBIOLOGY
Attenuation of allergen-induced airway hyperresponsiveness is mediated by airway regulatory T cells

Jennifer T. Burchell, Matthew E. Wikstrom, Philip A. Stumbles, Peter D. Sly, and Debra J. Turner

New asthma biomarkers: lessons from murine models of acute and chronic asthma

Emmanuel Di Valentin, Céline Crahay, Nancy Garbacki, Benoit Hennuy, Maud Guéders, Agnès Noël, Jean-Michel Foidart, Johan Grooten, Alain Colige, Jacques Piette, and Didier Cataldo

PI3Kγ-deficient mice have reduced levels of allergen-induced eosinophilic inflammation and airway remodeling

Dae Hyun Lim, Jae Youn Cho, Dae Jin Song, Sang Yeub Lee, Marina Miller, and David H. Broide

AIRWAY SMOOTH MUSCLE CELLS
Airway smooth muscle hyperplasia and hypertrophy correlate with glycogen synthase kinase-3β phosphorylation in a mouse model of asthma

J. Kelley Bentley, Huan Deng, Marisa J. Linn, Jing Lei, Gregoriy A. Dokshin, Diane C. Fingar, Khalil N. Bitar, William R. Henderson, Jr., and Marc B. Hershenson

HOST DEFENSE
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Kiyoyasu Kurahashi, Teiji Sawa, Maria Ota, Osamu Kajikawa, Keelung Hong, Thomas R. Martin, and Jeanine P. Wiener-Kronish

ENDOTHELIAL CELL BIOLOGY
Type 5 phosphodiesterase expression is a critical determinant of the endothelial cell angiogenic phenotype

Bing Zhu, Li Zhang, Mikhail Alexeyev, Diego F. Alvarez, Samuel J. Strada, and Troy Stevens