RESIN Research Support Information Network (RESIN)

Presented by: Office of the Vice Chancellor for Research

Date: October 3, 2017
<table>
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<th>Updates &amp; Timely Information from Research Support:</th>
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Zoonotic disease
Genetically altered or wild-type pathogens in experimental protocols
Human products (blood, tumor cell lines)
Animal allergens
Zoonoses

Originates from the Greek word *zion* (animal) and *noses* (disease)

- Direct contact (bites and scratches)
- Indirect (contaminated bedding, cages, surgical instruments, etc.)
  - Formation of particles or droplets that are suspended and transferred in air currents is a primary means of transmission
The good news...

Quality of research animals

Risk of human exposure to zoonotic disease
Animal Pathogens

- Very few in rodents in biomedical research
- Most have been eliminated
- Wild rodents
- Tumor cell lines
Lymphocytic Choriomeningitis Virus (LCMV)

- Mice (reservoir) and hamsters
- Transmitted by asymptomatic animals; air-borne has been documented
- Human tumor cell lines
- Humans develop flu-like illness
  - Fever, headache, malaise
  - Can lead to meningoencephalitis
  - Supportive care
Hantaviruses (Hemorrhagic Fever with Renal Syndrome and Hantavirus Pulmonary Syndrome)

- Rodent reservoirs; inhalation of infectious aerosols (saliva, urine, and feces)
- HFRS- flu like illness and hemorrhagic manifestations
- HPS- flu like illness, low platelet count, cough and respiratory failure
Rat Bite Fever

- Subclinical disease in rats, carried in oral cavity and upper respiratory tract
- Transmitted from a bite of an infected rat
- Flu like symptoms, rash, arthritis
Most risk now from animals used as models in studies

- Infectious agents
- Human cell lines, tumors, etc.
- Use of viral vectors (lentivirus, adenovirus, and adeno-associated viruses)

The use of any of these requires IBC approval
Allergies!!

- Studies show that 33% of animal handlers have animal allergies
  - Typically develops within the first several years after work with animals.
  - Reported risk are atopy, allergy to other furred pets, smoking and asthma
- Mouse and rat urinary allergens are the major source
Allergy Prevention

- Appropriate PPE
  - Disposable gowns, shoe covers, gloves, bonnets and masks as needed
- Use of Animal Transfer Stations and/or BSCs
- N95 if needed
Common chemicals/toxins reviewed by the IBC:
- Doxorubicin
- Tamoxifen
- Cisplatin
- BrdU
- Nanoparticles
- Toxins (Pertussis Toxin, Diptheria Toxin)
The IBC is concerned with human safety
Biosafety protocol submission deadline is **Last Friday** of the month
IBC and Chemical Hazards
Daniel E. Voth, Ph.D., Chair, Institutional Biosafety Committee

Questions?

Contact:

- **James Bishop**, JEBishop@uams.edu
  (501) 603-1288
- **Carol Price**, CJPrice@uams.edu
  (501) 686-5299
TRI and BioVentures are gauging the interest of faculty, postdocs and students in the fastPACE Course, a 4-week biomedical commercialization course designed for busy researchers and clinicians with early stage projects.

fastPACE:

- Created by FastForward Medical Innovation at the Univ. of Michigan and modeled after the successful NSF I-Corps program
- Blends in-person and online education to help researchers and clinicians learn the basic components of biomedical commercialization and prepare a successful business case for funding and research and development partnerships.
Who Should Enroll?

- The course is open to anyone with early stage innovations or ideas, including:
  - Clinicians and researchers
  - Postdocs and graduate students
  - Medical students
  - Other
Why Enroll?

- Develop a successful business case to secure funding and attract collaborators
- Determine the commercial viability of your innovation and/or its importance to patients
- Expand your network of innovation partners, mentors, and potential investors
- Develop greater self-confidence and business presentation skills
Include Your Team

As a project based course, participants may enroll their entire team of collaborators, including any postdoc, graduate, or medical student.

For those without collaborators or student team members, a group of students may be available to support the project during the course.
fastPACE at UAMS
Nancy M. Gray, Ph.D., Director, BioVentures

fastPACE Results

More than 70 project teams have graduated the fastPACE Course and used their experience to:

- Secure additional funding
- Find collaborators
- Submit publications
- Conduct new research
- Start companies
Interested?

For additional information or to express interest, contact Nancy Gray at BioVentures, nmgray@uams.edu
Outlook for Research in FY18
Lawrence E. Cornett, Ph.D., Vice Chancellor for Research

UAMS Research Funding (FY08-FY17)

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<th>Agency</th>
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<td>NIH</td>
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<td>Other Federal</td>
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<td>Non-Profit</td>
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Fiscal Year

$\text{, in millions}$
Outlook for Research in FY18
Lawrence E. Cornett, Ph.D., Vice Chancellor for Research

- **Good News**—NIH received $2 billion increase in the 2017 omnibus

- **Bad News**—President’s budget proposed $26.9 billion for NIH (~21% cut)
  - # of research awards would decline by 1600 (18%)
  - success rate projected at 13.7%
  - F&A costs reduced to 10%
  - Cuts to VA, CDC, and FDA research
Outlook for Research in FY18
Lawrence E. Cornett, Ph.D., Vice Chancellor for Research

- Back to Good News!
- Continuing Resolution through 12/8/2017
- Senate and House Appropriation
  Subcommittee rejected Trump cuts for NIH
  - House proposed $1.1 billion increase
  - Senate proposed $2 billion increase to $36.1 billion
  - Senate spending bill blocks cut in F&A payments
  - Senate bill includes additional $414 million for Alzheimer’s research, keeps AHRQ and Fogarty Center
Outlook for Research in FY18
Lawrence E. Cornett, Ph.D., Vice Chancellor for Research

Research Advocacy

Translational Research Model

Glaucoma
Increased internal pressure
Retina
Optic nerve
Damaged area

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Contact Information:
Office of the Vice Chancellor for Research
Biomedical Research Building Two
Room B159-2
501.686.5347
NIH PAP Update

98% - UAMS

98% - ACH
Resource Guides

NIH, Library, E&RS
Susan Steelman, MLIS, Professor | Head of Education & Research Services, UAMS Library

Basic Science Resources

National Center for Biotechnology Information (NCBI) scientific data repositories & datasets
- BioSystems
- Entrez Gene
- GEO Datasets
- NCBI Database of Genomic Structural Variation (dbVar)
- Nucleotide
- Protein

Animal research alternatives resources
- AltWeb – the Alternatives to Animal Testing Web Site was created to serve as a gateway to alternatives news, information, and resources. Altweb now is the U.S. home of the journal ALTEX Alternatives to Animal Experimentation, which is the official publication of the Johns Hopkins Center for Alternatives to Animal Testing (CAAT).
- Animal Welfare Information Center (AWIC) – US Department of Agriculture.
- JAX® Mice Database – Over 6,000 Jackson Laboratory (JAX®) Mice strains.

Writing and Publishing
- Scholarly Publishing & Open Access
- Federal Agencies Public Access Policies
NAME CHANGE

Education & Reference Services
Is now:

Education & Research Services

QUESTIONS?

Susan Steelman 686-6737
scsteelman@uams.edu
E&RS 686-6734
LibraryInformationDesk@uams.edu
Federal Demonstration Partnership (FDP)

- Cooperative initiative of federal granting agencies, institutional recipients of federal funds, and research policy organization
- Purpose is to work collectively to identify, test, and implement new and more effective ways of managing federal research grant.
- Goal is to improve productivity of research and the national research enterprise
- Pilot new ways of managing grants before introducing the initiatives to the wider research community
Clinical Trial Updates

- NIH Clinical Trial Definition [https://grants.nih.gov/policy/clinical-trials/definition.htm](https://grants.nih.gov/policy/clinical-trials/definition.htm)
  - Link includes FAQs, decision tree, and case studies
  - “Bureaucratic Friction” regarding purpose for definition.

- Effective for due dates on/after January 25, 2018 - all grant applications involving one or more clinical trials must be submitted through an FOA specifically designated for clinical trials.

- New Human Subjects and Clinical Trial Information Form
Application Updates

- SF424 (R&R) FORMS-E
  - For due dates on and after January 25, 2018
  - Application instructions now available
Application Updates (Cont.)

- Combines human subjects, inclusion enrollment information into one form
- Collects study-level information
- Discrete form fields capture clinical trial information and provide the level of detail needed for peer review
- Presents key information to reviewers and staff in a consistent format
- Aligns with ClinicalTrials.gov (where possible) for future data exchange with ClinicalTrials.gov
Admin Topics

- FY18 NIH Grants Policy Statement available October 6. Applies to all NIH grants and cooperative agreements with budget periods beginning on or after October 1, 2017

- Expanded Clearinghouse (Subawards)
  - Pilot officially ended June 30.
  - 19,401 hours saved (1.62 hours/transaction)
  - “Post Pilot” phase to include all FDP members.
Compliance Updates

- IRB Wizard in demonstration phase
  - Smart form of IRB Human Subjects review to identify exempt studies
  - 10 institutions, 542 studies dual reviewed (Wizard and IRB)
  - Outcome to date:
    - 40% agreement with IRB
    - 30% referred to IRB
    - Biggest issues are definitions, inconsistent PI answers, criteria agreement

- Animal use policies
  - 21st Century Cures act directs federal agencies to examine policies and reduce burden on research
  - Organizations have convened panel to make public suggestions as to how this should be done
Faculty Topics

- Faculty-Administrator Collaboration Taskforce (FACT)
  - Identify common issues and best practices to address:
    - How do faculty (researchers) and administrators interact?
    - How does administrative structure enhance faculty productivity while ensuring compliance?
    - Who is responsible for new policies and procedures?
Faculty Topics

- **3rd faculty workload survey**—2017/2018
- Collection of survey data from Faculty PIs on federally-funded grants.
- Goal: To provide information to FDP, federal agencies, universities and other FDP members to facilitate targeted, evidence-based reduction of administrative burden
  - Assess changes in experienced burdens since FWS2
  - Obtain detailed information about specific burdens (e.g., Proposal Preparation, Project Finances, IRB, IACUC)
  - Focus on perceived high priorities for change
  - Obtain data for evaluation by institution and/or agency
Faculty Topics

- 3rd faculty workload survey—2017/2018

When is it?

- Late January, 2018  Email Invitations To Be Sent
- 1-2 weeks later PRN  Email Reminder #1
- 1 week later PRN  Email Reminder #2
- 1 week later PRN  Final Email Reminder Data
- Collection will close approx. March 1, 2018.
Faculty Topics

- 3rd faculty workload survey—2017/2018

Who is included?

- All University Faculty Personnel serving as Principal Investigators (PIs) on Federally-Funded Research Projects (Grants and Contracts)
- Active (including no cost extensions) grants and contracts during 2016-2017 Academic Year (12 mo.)
- No pass-through awards to state or other entities
Showcase of Medical Discoveries

Databases

Linda Williams, M.S., Research Liaison

- **Databases for Research**
  - **Wed., Nov. 8, 2017**
  - **4:30 – 6:00 p.m.**
  - ~10 posters
  - 10th floor Winthrop P. Rockefeller Cancer Institute

**Showcase of Medical Discoveries**

Databases for Research

Wednesday, November 8, 2017
4:30–6:00 p.m.

UAMS Winthrop P. Rockefeller Cancer Institute Rotunda (10th Floor)

The 20th Showcase of Medical Discoveries with wine and cheese reception will feature UAMS database developers and users discussing various research databases (e.g., AR Clinical Data Repository, Affresearch, Arkansas All-Payer Claims Database, TRINetX, etc.) available to UAMS investigators. The showcase is open to all interested faculty, students, staff and invited guests. The series’ ongoing goals include fostering communication/collaboration between investigators and increasing awareness of exciting research in Arkansas.

UAMS Division of Research
For more information, contact
Linda Williams - ldwilliams@uams.edu

10/3/2017
Next RESIN

- **November 7, 2017 @ 12:00 p.m.**
- **Location - Walton Auditorium, Winthrop P. Rockefeller Cancer Institute, 10th floor**
- **All RESIN presentations archived on the UAMS Research website**
  - [http://www.uams.edu/research/RESIN_Achive.asp](http://www.uams.edu/research/RESIN_Achive.asp)