Understanding Systematic Reviews

According to the National Academy of Science, a systematic review is “a scientific investigation that focuses on a specific question and uses explicit, prespecified scientific methods to identify, select, assess, and summarize the findings of similar but separate studies.”¹ Unfortunately, systematic reviews are often poorly written or do not encompass enough valuable information. Below are some tips before embarking on your own systematic review:

1. **Be willing to put in the time:** A quality literature search for a systematic review may take 3 to 8 months to complete.² Then, after acquiring the necessary literature, the research must be compiled and analyzed. In order to provide quality work for other researchers, it is imperative to understand how much time this project will require.

2. **Do preliminary research first:** Make sure to do a thorough database search to guarantee that others have not already addressed your research question. Seeking the help of a research librarian may provide a more encompassing search result. Nothing is more frustrating than beginning a project only to find that someone else has already beat you to the punch.

3. **Put together a research team:** The University of Pittsburgh recommends two individuals perform screening and data extraction from the literature search; one person be responsible for the design of the data screening and extraction, report generation, and data cleaning; one research librarian to collect literature; and a biostatistician if the team intends to do a meta-analysis.²

4. **Know where to publish:** Keep in mind that not all journals accept systematic reviews for publication. Therefore, you should know where you wish to publish before beginning your project. Moreover, each journal requires different elements for a systematic review. Be sure to tailor your review to the journal’s author instructions.

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² Health Sciences Library System. Working with the HSLS Systematic Review Program. Pittsburgh, PA: The University of Pittsburgh.
Applause!

Recognizing UTCVM people for their awards and accomplishments

Maria Cekanova received an Invitation to Attend Neutron Sciences Review Onsite Meeting at Oak Ridge National Laboratory (ORNL) for Spring 2018 proposal call by Dr. Suzanne Parete-Koon, Group Leader, User Programs and Outreach Neutron Sciences Directorate at ORNL. Cekanova has also been nominated to attend the proposal ranking meeting that will occur onsite at ORNL on March 26. In this capacity, she will assist the Imaging Subcommittee chair in ranking and normalizing the scores from all proposals evaluated by the subcommittee.

Cekanova was invited by Dr. James Mack, an NIH Scientific Review Officer, to serve as a mail reviewer for the 2018 NIH Director’s Pioneer Award Program Stage 1. This is a high profile, highly competitive granting mechanism intended to support individual scientists who propose pioneering approaches to produce a major impact on broad problems in biomedical and behavioral research. Awards are for $700,000 in direct costs each year for five years.

Cekanova was also invited to participate in a project with the NIH Center for Scientific Review implemented by Social Solutions International to provide feedback on 1-8 R01 grant applications. This project is designed to support CSR’s mission to ensure a grant review process that enables NIH to fund the most promising research.

Teresa Fisher won the University of Tennessee President’s Award Citation of Merit in the category of support.

Elizabeth Strand won the University of Tennessee President’s Award for her works to educate veterinary professionals nationwide. She recently launched SAVE (Suicide Awareness in Veterinary Education) to educate veterinary professionals and students nationally about mental health issues and raise awareness of the resources available.

SHOW ME THE MONEY

Grant Awards Since January 2018

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Lead PI</th>
<th>Sponsor</th>
<th>Amount</th>
<th>Project Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>PetSmart Charities MOU</td>
<td>Claudia Kirk</td>
<td>Petsmart Charities</td>
<td>$15,000</td>
<td>1/1/2018-12/31/2018</td>
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<tr>
<td>Expansion of Human Animal Bond in Tennessee (HABIT) into Middle and West Tennessee</td>
<td>Marcy Souza</td>
<td>Tennessee Office of Criminal Justice Programs</td>
<td>$381,500</td>
<td>1/1/2018-6/30/2020</td>
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<tr>
<td>Pilot PK Study of Fluorocoxib D in Canine Model of Bladder Cancer</td>
<td>Maria Cekanova</td>
<td>Vanderbilt University</td>
<td>$16,645</td>
<td>1/1/2018-12/31/2018</td>
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<tr>
<td>Mechanisms of Herpetic Keratitis</td>
<td>Barry Rouse</td>
<td>NIH- National Eye Institute</td>
<td>$403,838</td>
<td>1/1/2018-12/31/2018</td>
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<tr>
<td>Clinical Trial of Virulence Factor Vaccine for Staphylococcus pseudintermedius Canine Pyoderma</td>
<td>Stephen Kania</td>
<td>University of Tennessee Research Foundation (UTRF)</td>
<td>$15,000</td>
<td>1/2/2018-10/6/2018</td>
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<tr>
<td>Evaluation of the use of a break-away device for the protection against intravenous catheter disruption in small and large animals</td>
<td>Pierre-Yves Mulon</td>
<td>Site Saver Inc (DBA Lineus Medical)</td>
<td>$12,613</td>
<td>1/29/2018-1/28/2019</td>
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<td>Molecular phenotyping of airway mast cell proteases in healthy versus asthmatic horses</td>
<td>Elizabeth Lennon</td>
<td>Morris Animal Foundation</td>
<td>$10,800</td>
<td>2/1/2018-1/31/2019</td>
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<td>Investigation of Enterococcus Probiotic Therapy on Tritrichomonas Infection</td>
<td>Mary Tolbert</td>
<td>Comparative Gastro-enterology Society</td>
<td>$8,000</td>
<td>5/1/2018-4/30/2019</td>
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</tbody>
</table>
RECENT PUBLICATIONS


van Amstel SR, Anderson DE, Videla R. Modified abaxial approach for resection of the distal sesamoid bone and distal interphalangeal joint while preserving the digital flexor tendons of three Angus bulls with septic arthritis. *JAVMA*, 252(7):873-81.


RECENT PUBLICATIONS continued...


The following are approaching funding deadlines:

<table>
<thead>
<tr>
<th>Deadline</th>
<th>Sponsor</th>
<th>Program</th>
<th>Amount/Year</th>
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<tbody>
<tr>
<td>June 16</td>
<td>NIH, National Institute on Aging</td>
<td>Comparative Biology of Neurodegeneration (R21)</td>
<td>$200K(+/-)/2yrs</td>
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<tr>
<td>July 14</td>
<td>Burroughs Wellcome Fund</td>
<td>Pathogenesis of Infectious Disease</td>
<td>$500K/5 yrs</td>
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<td>July 15</td>
<td>Association of Field Ornithologists</td>
<td>E. Alexander Bergstrom Memorial Research Award</td>
<td>$1,500</td>
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<td>July 20</td>
<td>Breast Cancer Alliance</td>
<td>Exceptional Project Grants</td>
<td>$100K(+/-)/1 yr</td>
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<td>July 24</td>
<td>American Heart Association</td>
<td>Merit Award</td>
<td>$1 million/5yrs</td>
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<tr>
<td>August 1</td>
<td>American Heart Association</td>
<td>Vascular Disease Network</td>
<td>$3.7 million/ 4yrs</td>
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<tr>
<td>August 7</td>
<td>Winn Feline Foundation</td>
<td>Miller Trust Grants</td>
<td>$35K(+/-)/1-2yrs</td>
</tr>
</tbody>
</table>

**RECENT PRESENTATIONS**


Egger C. Anesthetic Complication and Emergencies, Anesthesia with Concurrent Disease, Anesthesia Monitoring, Anesthesia for Trauma Patients, and Loco Regional Analgesia. Invited speaker at: Beijing Small Animal Veterinary Association Spring Meeting, Shanghai, China, April 12-29, 2018.


Don’t Forget!

UT offers bioinformatic support for researchers through the Bioinformatics Resource Center (BRC). The BRC’s mission is “to support researchers in analyzing sequence data by providing bioinformatics expertise and access to state-of-the-art computational resources. The BRC aims to serve as a bioinformatics hub for the UTK campus, where ideas can be shared and developed collaboratively.” The BRC is located in room 736 of the Science and Engineering Research Facility (SERF). You can also subscribe to the BRC email list by contacting the coordinator, Robert Murdoch, at rmurdoch@utk.edu. Additional information about the BRC and the UT Genomics Core can be found on their website: https://ceb.utk.edu/bioinformatics-resource-center/.