Robert A. Phillips Award • Application Guide

Introduction

History
This award honors the legacy of Captain Robert Allan Phillips (1906–1976) who established effective, evidence-based rehydration methods for the treatment of cholera. As a Navy lieutenant at the Rockefeller Institute for Medical Research (New York, New York) during World War II, Phillips developed a field method for the rapid assessment of fluid loss in wounded servicemen. After the war, he championed the establishment of United States Naval Medical Research Unit (NAMRU)-3 (Cairo; 1946) and NAMRU-2 (Taipei; 1955), serving at the helm of both units.

Phillips embarked on cholera studies during the 1947 Egyptian cholera epidemic and brought them to maturity at NAMRU-2 (1958–1965). He revealed the pathophysiologic derangements induced by cholera and developed highly efficient methods of intravenous rehydration. His vision of a simpler cholera treatment was realized in the late 1960s with the advent of glucose-based oral rehydration therapy, a monumental breakthrough to which many other investigators made vital contributions. Today, these simple advances are part of everyday medical practice across the globe, saving millions of lives annually.

Winners of the Phillips awards from the National Capital Region move on to compete in the Navy-wide research competition at Walter Reed National Military Medical Center on 16 May. If the original presenter cannot attend, another author of the project can represent the team at the Navy-wide event.

Eligibility Requirements
- Military service members and federal civilian employees training or working in the National Capital Region are eligible.
- Applicants may either be nominated by their program directors or self-nominate.

Deadline
Abstract submission period: December 2017 – January 2018. Please submit your application to the Department of Research Programs by 31 January 2018. Send all forms to dha.bethesda.wmmmc.mbx.researchandinnovationmonth@mail.mil. You will receive an email confirming receipt of your package and a message if any of your material is missing.

Please complete and submit these three documents to qualify for a review:
1. Nomination Form (page 3)
2. Abstract Submission Form (page 4)
3. Abstract (page 5)

Poster Display Week
All applicants must display their research posters in Building 9 during Poster Display Week. Look for e-blasts with details. The Medical Graphic Arts Department can create your research poster for free. Please submit a work order form and your poster draft to MGAD by 28 February 2018.

Research Symposia I and II
If you are notified that you are a competition category finalist in March–April, you will give a slide presentation on your submission at Research Symposium I or II. Slide presentations will be 10 minutes, followed by a 5-minute question-and-answer session. Awards will be given at the conclusion of Research Symposium II.

Navy-wide Academic Research Competition
Up to four winners of the Phillips Award will participate in the Navy-wide Academic Research Competition at Walter Reed Bethesda on 16 May 2018, from about 0800 to 1300. Details will be provided closer to the time. This competition rotates yearly among three military medical centers in Bethesda, Portsmouth, and San Diego.

Participants must furnish the number given to their research project by the Institutional Review Board. Speakers will give a 10- to 15-minute slide presentation, followed by questions from the judges. Regrettably, contractors cannot represent their team in this phase of the competition. Awards will be given at the conclusion of the event.
You may also find all research competition forms and documents on the Department of Research Programs (DRP) internet (public) and intranet (SharePoint) site. Please follow these instructions:

1. DRP Public Site https://www.wrnmmc.capmed.mil/ResearchEducation/ResearchPrograms/SitePages/Home.aspx:
   On the left column, click “Research & Innovation Month” under “Services,” and scroll down to All Important Documents.

Task Checklist

☐ Start your research project during the training period.
☐ Complete required paperwork for the award in December–January.
☐ First Submission
   Deadline: No later than 31 January 2018. Applicant sends abstract submission material to dha.bethesda.wrnmmc.mbx.researchandinnovationmonth@mail.mil. Please use this subject line format: Last Name, First Name (Category-Training Status-Category Type). Example: White, Ben (RAP-Intern-Laboratory)
☐ Include these three documents:
   1. Nomination Form (page 3)
   2. Abstract Submission Form (page 4)
   3. Abstract (page 5)
☐ Messages will go to applicants on the completion status of their abstract submission package. If the submission package is incomplete, the applicant may submit the missing material, with the same subject line, before 04 February 2018 to dha.bethesda.wrnmmc.mbx.researchandinnovationmonth@mail.mil.
☐ Second Submission
   Deadline: No later than 28 February 2018. Submit a poster draft, Medical Graphic Arts Department (MGAD) work order form, Instructions for Permission form from the U.S. Navy Bureau of Medicine and Surgery (BUMED), and a HIPAA Privacy Release form to MGAD. Points of contact at MGAD are Mary-Ann Ayrandjian (mary-ann.ayrandjian.civ@mail.mil) and Shane Stiefel (shane.m.stiefel.civ@mail.mil).
   Note: Please provide permissions for images and brands, and any copyright information, for your poster.
☐ Receive notification of whether applicant is a finalist for the Phillips award category by email (March–April 2018) and start preparing a slide presentation for the Research Symposium I and II.
☐ Pick up poster from MGAD upon email announcement.
☐ Create and submit slide presentation, based on the research abstract, for Research Symposium I and II (Deadline: 22 April 2018)
☐ Display research poster at Poster Display Week (30 April-04 May 2018).
☐ Prepare formal uniform to present at Research Symposia I or II, as assigned (09 or 10 May 2018).
   ○ Army: Class A uniforms
   ○ Navy: Summer White uniforms
   ○ Air Force: Service Dress
   ○ Federal employees and contractors: formal business attire
☐ Attend the awards ceremony at Research Symposium II (10 May 2018).
☐ If selected as a winner, prepare to present at the Navy-Wide Academic Research Competition, hosted by Walter Reed Bethesda.
Nomination Form

Applicants may be nominated by their program director, department chief, or they may self-nominate.

FROM: Applicant, Program Director, or Department Chief ________________________________
Name, Rank and Title ________________________________________________________________
Name of Program _________________________________________________________________
Department ________________________________

TO: Chief, Department of Research Programs (Walter Reed Bethesda)

SUBJECT: Nomination for the 10th Annual National Capital Region Research Competition

DATE: ________________

Please consider the nominee, ________________________________________________, for the 10th Annual National Capital Region Research Competition, in the category of the Robert A. Phillips Award.

1. Please highlight or circle one:

   Staff/Fellow or Resident/Intern

   and

2. Please highlight or circle one:

   Clinical or Laboratory

Nominee Information:

Name, Title: _________________________________________________________________
Company (USAE: Alpha Co, Bravo Co, or HHQ Co) or Navy/AF: __________________________
Project IRB number (if applicable): ________________________________________________
Project time period: _____________________________________________________________
Duty assignment: _______________________________________________________________
Year of training: __________________________

Email addresses

   Primary (Military Issued Email Address) ____________________________________________
   Secondary _________________________________________________________________

Phone numbers

   Daytime and Evening __________________________________________________________
   Pager Number and Cell ________________________________________________________

Please check that all required documents are in this package. Incomplete packages will delay the process.

☐ The research project abstract is attached.
☐ The Abstract Submission Form is attached (see pages 4).

_________________________________________ or ______________________________________
Signature (department chief or program director) Signature (self-nominee)
Abstract Submission Form

IRB Number (Omit if research is meta-analysis): __________________________________________

Project Title ________________________________________________________________

Author(s)

Name, Title, Department

Name, Title, Department

Name, Title, Department

Name, Title, Department

Name, Title, Department

Name, Title, Department

Robert A. Phillips Award applicants may be nominated by their program director or department chief, or they may self-nominate.

Please highlight or circle the two subcategories in which you will take part:

1. Staff/Fellow or Resident/Intern

   and

2. Clinical or Laboratory
Abstract

Please attach your abstract (one page; Calibri, 12-point font), including these sections:

1. Title and authors
2. Objectives
3. Design or Methods
4. Results
5. Conclusions
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Laboratory Abstract Example

Here is an abstract submitted by the 2015 laboratory winner of the Robert A. Phillips Award:

Novel Anterior Chamber Tube Shunt with Tissue Autograft

Packer K1,2; Chen S3; Andreo L1; Lowry J1; ZumBrunn S1

1Walter Reed National Military Medical Center, Bethesda, MD 20889
2Dwight D. Eisenhower Army Medical Center, Fort Gordon, GA 30905

PURPOSE: Anterior chamber tube shunts are a common surgical intervention to lower intraocular pressure in patients with glaucoma; however, their function is limited by several complications including scarring caused by a persistent inflammatory response to synthetic materials. This project is designed to explore a new design of tube shunt construction using a tissue autograft.

DESIGN: Prospective cohort animal therapy model.

METHODS: We included two cohorts in this study, the first arm includes autograft vs the control fellow eye (6 rabbits). We harvested saphenous venous grafts attached to a block of capillary-perfused tissue to serve as a functional reservoir in a tube shunt system. The venous graft was secured to the end of a standard silicone tube shunt (Ahmed model TE) and implanted beneath the conjunctiva following the standard method aqueous drainage device insertion. The second arm includes commercially available Ahmed pediatric glaucoma valves (model FP8) implanted via standard methods vs the control fellow eye (6 rabbits). The rabbits were housed in an IACUC approved facility for 60 days postoperatively and received a standard postop medication regimen of prednisolone daily for 14 days, PredFort twice daily for 14 days then once daily for 14 days, and ciprofloxacin twice daily for 14 days then once daily for 14 days. 30 minutes prior to sacrifice, the rabbits were sedated with ketamine and xylazine and 1cc of cationic ferritin tracer was injected in the operated eye via intracameral method. The operated eye was enucleated and half of the graft site was excised and flash frozen in liquid nitrogen for ELISA analysis. The remainder of the graft site was tagged with a 6.0 nylon suture and placed in formalin fixative for 24h prior to pathologic sectioning.

SETTING: IACUC approved animal research laboratory Fort Gordon, GA.

STUDY POPULATION: Twelve adult male New Zealand White rabbits.

MAIN OUTCOME MEASURES: (1) Intraocular pressure on operated eye vs. the control fellow eye. (2) Patency of tube shunt apparatus at 2 months evaluated histologically with cationic ferritin tracer and Prussian Blue stain. (3) Histologic evidence of inflammation and fibrosis in and around the apparatus at 2 months with H&E stain. (4) Immunologic assay for late inflammatory markers in the draining aqueous humor (TNF alpha, TGFb-2, IL-6).

RESULTS/CONCLUSION: Initial results on six rabbits with Ahmed implants and three rabbits with autografts demonstrate a significant difference in intraocular pressure between Ahmed (mean 14.5mmHg) and autograft eyes (12.87mmHg) with p<0.0001. Histologic samples are in process. Initial ELISA of aqueous humor TNFalpha measurements shows no significant difference between Ahmed or autograft eyes. Histologic analysis of tissue samples is pending. Three autograft rabbits have not completed the protocol. Our hypothesis is that inflammation and fibrosis will be decreased in this design compared to standard designs as the immune system will recognize the graft as ‘self’ and not as a foreign body. With decreased fibrosis, the flow of aqueous humor can be maintained over a longer time period providing an improved functional outcome compared to standard surgical therapy.
Clinical Abstract Submission Example

Here is an abstract from a recent clinical winner of the Robert A. Phillips Award:

**Autism Spectrum Disorder Increases the Risk of Obesity and Metabolic Comorbidities**

Katherine Shedlock, MD1, Apryl Susi, MS2, Gregory Gorman, MD2, Elizabeth Hisle-Gorman, PhD, Christine Erdie-Lalena, MD and Cade Nylund, MD1. 1Pulmonary, Critical Care and Sleep Medicine, Walter Reed National Military Medical Center, Bethesda, MD. 2Pediatrics, Uniformed Services University of the Health Sciences, Bethesda, MD.

**Background:** Children with Autism Spectrum Disorder (ASD) often have an overly selective, energy-dense diet that may lead to obesity. The rate of obesity and its complications are unknown in children with ASD.

**Objective:** We sought to determine and compare the rate of obesity, diabetes mellitus type II (T2DM), hypertension, hyperlipidemia, and non-alcoholic fatty liver disease/steatohepatitis (NAFLD/NASH) between children with ASD and controls.

**Design/Methods:** A retrospective case-cohort study was performed over the time period of Oct 2000-Sept 2013 using the Military Health System database. This database is comprised of billing data for outpatient visits, inpatient admissions, and prescriptions of all military members and their family members treated in both military and civilian medical facilities. Children with two or more encounters with ICD-9 diagnostic codes for ASD were matched 1:5 with controls by age, gender, and enrollment timeframe. For both groups, ICD-9 diagnostic codes for obesity, T2DM, hypertension, hyperlipidemia, NAFLD/NASH, and prescriptions were obtained. Conditional logistic regression determined the odds ratio [OR]. For children with ASD, we evaluated the risk of obesity associated with psychotropic medication use.

**Results:** There were 48,762 individuals with ASD and 243,810 controls. The percentage of children with ASD and obesity was 8% compared to 3% of controls [table 1]. Children with ASD had higher odds of having T2DM, hypertension, hyperlipidemia, and NAFLD/NASH [table 1], and they were more likely to be treated with a medication when they had these comorbidities (OR, 2.78; 95% CI, 2.63-2.95). In children with ASD, antipsychotics, SSRIs, antiepileptics, and mood stabilizers were associated with obesity (P<0.001).

**Conclusions:** Children with ASD have an increased risk of obesity and metabolic complications, and they are more likely to be prescribed medications to treat these complications. There was a significant association between the use of ASD-directed pharmacotherapy (antipsychotics, SSRIs, etc.) and a diagnosis of obesity, suggesting that obesity may be partially iatrogenic.

<table>
<thead>
<tr>
<th></th>
<th>ASD (n=48,762)</th>
<th>Control (n=243,810)</th>
<th>OR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obesity</td>
<td>4,004 (8.2%)</td>
<td>11,402 (4.7%)</td>
<td>1.84 (1.78-1.92)</td>
</tr>
<tr>
<td>Diabetes Mellitus Type II</td>
<td>515 (1.1%)</td>
<td>970 (0.4%)</td>
<td>2.68 (2.41-2.99)</td>
</tr>
<tr>
<td>HTN</td>
<td>497 (1.0%)</td>
<td>1,227 (0.5%)</td>
<td>2.04 (1.84-2.27)</td>
</tr>
<tr>
<td>Hyperlipidemia</td>
<td>1,606 (3.3%)</td>
<td>4,085 (1.7%)</td>
<td>2.01 (1.90-2.13)</td>
</tr>
<tr>
<td>NAFLD/NASH</td>
<td>73 (0.2%)</td>
<td>133 (0.1%)</td>
<td>2.74 (2.06-3.65)</td>
</tr>
</tbody>
</table>
Robert A. Phillips Award applicants are free to choose the content and arrangement of their posters. However, research posters should include all the following items:

1. Title
2. Authors and institutions
3. Introduction
4. Objectives
5. Methods
6. Data or Results
7. Discussion
8. Conclusion
9. References

The picture here is an example of a 2015 poster from Poster Display Week.
Slide Presentation

Build your slide presentation with the same elements, in the same order, as your research poster. However, you may choose the content and how to show it.

Some of your audience may be sitting at a distance. Make text large enough for the audience to read (±20 points, for most fonts). Recent winners have dramatized their results using bar graphs, line graphs, flow charts and other graphic displays.

The slide talk prepared for the clinical abstract on page 7 is shown here: