



DEPARTMENT OF THE AIR FORCE
59TH MEDICAL WING (AETC)
JOINT BASE SAN ANTONIO - LACKLAND TEXAS



7 APR 2017

MEMORANDUM FOR 959 CSPS

ATTN: CAPT MARIYA GUSMAN

FROM: 59 MDW/SGVU

SUBJECT: Professional Presentation Approval

1. Your paper, entitled **Traumatic Brain Injury: Are We Conducting Enough Research?** presented at/published to **MHSRS Conference 2017 – Date/Location To be Determined (Poster & Presentation)** in accordance with MDWI 41-108, has been approved and assigned local file #**17163**.
2. Pertinent biographic information (name of author(s), title, etc.) has been entered into our computer file. Please advise us (by phone or mail) that your presentation was given. At that time, we will need the date (month, day and year) along with the location of your presentation. It is important to update this information so that we can provide quality support for you, your department, and the Medical Center commander. This information is used to document the scholarly activities of our professional staff and students, which is an essential component of Wilford Hall Ambulatory Surgical Center (WHASC) internship and residency programs.
3. Please know that if you are a Graduate Health Sciences Education student and your department has told you they cannot fund your publication, the 59th Clinical Research Division may pay for your basic journal publishing charges (to include costs for tables and black and white photos). We cannot pay for reprints. If you are a 59 MDW staff member, we can forward your request for funds to the designated Wing POC at the Chief Scientist's Office, Ms. Alice Houy, office phone: 210-292-8029; email address: alice.houy.civ@mail.mil.
4. Congratulations, and thank you for your efforts and time. Your contributions are vital to the medical mission. We look forward to assisting you in your future publication/presentation efforts.

Linda Steel-Goodwin

LINDA STEEL-GOODWIN, Col, USAF, BSC
Director, Clinical Investigations & Research Support

PROCESSING OF PROFESSIONAL MEDICAL RESEARCH/TECHNICAL PUBLICATIONS/PRESENTATIONS

INSTRUCTIONS

USE ONLY THE MOST CURRENT 59 MDW FORM 3039 LOCATED ON AF E-PUBLISHING

1. The author must complete page two of this form:
 - a. In Section 2, add the funding source for your study [e.g., 59 MDW CRD Graduate Health Sciences Education (GHSE) (SG5 O&M); SG5 R&D; Tri-Service Nursing Research Program (TSNRP); Defense Medical Research & Development Program (DMRDP); NIH; Congressionally Directed Medical Research Program (CDMRP) ; Grants; etc.]
 - b. In Section 2, there may be funding available for journal costs, if your department is not paying for figures, tables or photographs for your publication. Please state "YES" or "NO" in Section 2 of the form, if you need publication funding support.
2. Print your name, rank/grade, sign and date the form in the author's signature block or use an electronic signature.
3. Attach a copy of the 59 MDW IRB or IACUC approval letter for the research related study. If this is a technical publication/presentation, state the type (e.g. case report, QA/QI study, program evaluation study, informational report/briefing, etc.) in the "Protocol Title" box.
4. Attach a copy of your abstract, paper, poster and other supporting documentation.
5. Save and forward, via email, the processing form and all supporting documentation to your unit commander, program director or immediate supervisor for review/approval.
6. On page 2, have either your unit commander, program director or immediate supervisor:
 - a. Print their name, rank/grade, title; sign and date the form in the approving authority's signature block or use an electronic signature.
7. Submit your completed form and all supporting documentation to the CRD for processing (59crdpubspres@us.af.mil). **This should be accomplished no later than 30 days before final clearance is required to publish/present your materials.** If you have any questions or concerns, please contact the 59 CRD/Publications and Presentations Section at 292-7141 for assistance.
8. The 59 CRD/Publications and Presentations Section will route the request form to clinical investigations, 502 ISG/JAC (Ethics Review) and Public Affairs (59 MDW/PA) for review and then forward you a final letter of approval or disapproval.
9. Once your manuscript, poster or presentation has been approved for a one-time public release, you may proceed with your publication or presentation submission activities, as stated on this form. **Note:** For each new release of medical research or technical information as a publication/presentation, a new 59 MDW Form 3039 must be submitted for review and approval.
10. If your manuscript is accepted for scientific publication, please contact the 59 CRD/Publications and Presentations Section at 292-7141. This information is reported to the 59 MDW/CC. All medical research or technical information publications/presentations must be reported to the Defense Technical Information Center (DITC). See 59 MDWI 41-108, *Presentation and Publication of Medical and Technical Papers*, for additional information.
11. The Joint Ethics Regulation (JER) DoD 5500.07-R, *Standards of Conduct*, provides standards of ethical conduct for all DoD personnel and their interactions with other non-DoD entities, organizations, societies, conferences, etc. Part of the Form 3039 review and approval process includes a legal ethics review to address any potential conflicts related to DoD personnel participating in non-DoD sponsored conferences, professional meetings, publication/presentation disclosures to domestic and foreign audiences, DoD personnel accepting non-DoD contributions, awards, honoraria, gifts, etc. The specific circumstances for your presentation will determine whether a legal review is necessary. **If you (as the author) or your supervisor check "NO" in block 17 of the Form 3039, your research or technical documents will not be forwarded to the 502 ISG/JAC legal office for an ethics review.** To assist you in making this decision about whether to request a legal review, the following examples are provided as a guideline:

For presentations before professional societies and like organizations, the 59 MDW Public Affairs Office (PAO) will provide the needed review to ensure proper disclaimers are included and the subject matter of the presentation does not create any cause for DoD concern.

If the sponsor of a conference or meeting is a DoD entity, an ethics review of your presentation is not required, since the DoD entity is responsible to obtain all approvals for the event.

If the sponsor of a conference or meeting is a non-DoD commercial entity or an entity seeking to do business with the government, then your presentation should have an ethics review.

If your travel is being paid for (in whole or in part) by a non-Federal entity (someone other than the government), a legal ethics review is needed. These requests for legal review should come through the 59 MDW Gifts and Grants Office to 502 ISG/JAC.

If you are receiving an honorarium or payment for speaking, a legal ethics review is required.

If you (as the author) or your supervisor check "YES" in block 17 of the Form 3039, your research or technical documents will be forwarded simultaneously to the 502 ISG/JAC legal office and PAO for review to help reduce turn-around time. If you have any questions regarding legal reviews, please contact the legal office at (210) 671-5795/3365, DSN 473.

NOTE: All abstracts, papers, posters, etc., should contain the following disclaimer statement:

"The views expressed are those of the [author(s)] [presenter(s)] and do not reflect the official views or policy of the Department of Defense or its Components"

NOTE: All abstracts, papers, posters, etc., should contain the following disclaimer statement for research involving humans:

"The voluntary, fully informed consent of the subjects used in this research was obtained as required by 32 CFR 219 and DODI 3216.02_AFI 40-402."

NOTE: All abstracts, papers, posters, etc., should contain the following disclaimer statement for research involving animals, as required by AFMAN 40-401_IP :

"The experiments reported herein were conducted according to the principles set forth in the National Institute of Health Publication No. 80-23, Guide for the Care and Use of Laboratory Animals and the Animal Welfare Act of 1966, as amended."

PROCESSING OF PROFESSIONAL MEDICAL RESEARCH/TECHNICAL PUBLICATIONS/PRESENTATIONS			
1. TO: CLINICAL RESEARCH	2. FROM: (Author's Name, Rank, Grade, Office Symbol) Mariya Gusman	3. GME/GHSE STUDENT: ☒ YES ☐ NO	4. PROTOCOL NUMBER: NA
5. PROTOCOL TITLE: (NOTE: For each new release of medical research or technical information as a publication/presentation, a new 59 MDW Form 3039 must be submitted for review and approval.) NA -Pubmed searches were the only source of data			
6. TITLE OF MATERIAL TO BE PUBLISHED OR PRESENTED: Traumatic Brain Injury: Are We Conducting Enough Research?			
7. FUNDING RECEIVED FOR THIS STUDY? ☐ YES ☒ NO FUNDING SOURCE:			
8. DO YOU NEED FUNDING SUPPORT FOR PUBLICATION PURPOSES: ☒ YES ☐ NO			
9. IS THIS MATERIAL CLASSIFIED? ☐ YES ☒ NO			
10. IS THIS MATERIAL SUBJECT TO ANY LEGAL RESTRICTIONS FOR PUBLICATION OR PRESENTATION THROUGH A COLLABORATIVE RESEARCH AND DEVELOPMENT AGREEMENT (CRADA), MATERIAL TRANSFER AGREEMENT (MTA), INTELLECTUAL PROPERTY RIGHTS AGREEMENT ETC.? ☐ YES ☒ NO NOTE: If the answer is YES then attach a copy of the Agreement to the Publications/Presentations Request Form.			
11. MATERIAL IS FOR: ☒ DOMESTIC RELEASE ☐ FOREIGN RELEASE CHECK APPROPRIATE BOX OR BOXES FOR APPROVAL WITH THIS REQUEST. ATTACH COPY OF MATERIAL TO BE PUBLISHED/PRESENTED.			
☐ 11a. PUBLICATION/JOURNAL (List intended publication/journal.)			
☐ 11b. PUBLISHED ABSTRACT (List intended journal.)			
☒ 11c. POSTER (To be demonstrated at meeting: name of meeting, city, state, and date of meeting.) MHSRS Conference 2017 - To Be Determined			
☒ 11d. PLATFORM PRESENTATION (At civilian institutions: name of meeting, state, and date of meeting.) MHSRS Conference 2017 - To Be Determined			
☐ 11e. OTHER (Describe: name of meeting, city, state, and date of meeting.)			
12. HAVE YOUR ATTACHED RESEARCH/TECHNICAL MATERIALS BEEN PREVIOUSLY APPROVED TO BE PUBLISHED/PRESENTED? ☐ YES ☒ NO ASSIGNED FILE # _____ DATE _____			
13. EXPECTED DATE WHEN YOU WILL NEED THE CRD TO SUBMIT YOUR CLEARED PRESENTATION/PUBLICATION TO DTIC NOTE: All publications/presentations are required to be placed in the Defense Technical Information Center (DTIC).			
DATE 15Jun2017			
14. 59 MDW PRIMARY POINT OF CONTACT (Last Name, First Name, M.I., email) Gusman, Mariya mariya.gusman.mil@mail.mil			15. DUTY PHONE/PAGER NUMBER 845-916-3290
16. AUTHORSHIP AND CO-AUTHOR(S) List in the order they will appear in the manuscript.			
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b. Jonathan Sosnov	Lt Col	959 MDOS/SGOI	
c. Jeff Howard	DB3		USAISR
d.			
e.			
17. IS A 502 ISG/JAC ETHICS REVIEW REQUIRED (JER DOD 5500.07-R)? ☐ YES ☒ NO			
I CERTIFY ANY HUMAN OR ANIMAL RESEARCH RELATED STUDIES WERE APPROVED AND PERFORMED IN STRICT ACCORDANCE WITH 32 CFR 219, AFMAN 40-401 JP, AND 59 MDWI 41-108. I HAVE READ THE FINAL VERSION OF THE ATTACHED MATERIAL AND CERTIFY THAT IT IS AN ACCURATE MANUSCRIPT FOR PUBLICATION AND/OR PRESENTATION.			
18. AUTHOR'S PRINTED NAME, RANK, GRADE Mariya Gusman, Capt, O-3		19. AUTHOR'S SIGNATURE GUSMAN MARIYA 1386423179	20. DATE March 12, 2017
21. APPROVING AUTHORITY'S PRINTED NAME, RANK, TITLE Christian L Carlson, LTC(P), Residency Program Director		22. APPROVING AUTHORITY'S SIGNATURE CARLSON CHRISTIAN LACELLE 1158347268	23. DATE March 14, 2017

PROCESSING OF PROFESSIONAL MEDICAL RESEARCH/TECHNICAL PUBLICATIONS/PRESENTATIONS		
1st ENDORSEMENT (59 MDW/SGVU Use Only)		
TO: Clinical Research Division 59 MDW/CRD Contact 292-7141 for email instructions.	24. DATE RECEIVED March 15, 2017	25. ASSIGNED PROCESSING REQUEST FILE NUMBER 17163
26. DATE REVIEWED April 03, 2017	27. DATE FORWARDED TO 502 ISG/JAC	
28. AUTHOR CONTACTED FOR RECOMMENDED OR NECESSARY CHANGES: ☒ NO ☐ YES If yes, give date, _____ ☐ N/A		
29. COMMENTS ☒ APPROVED ☐ DISAPPROVED Analysis of publically available information, appropriate disclaimers included. Approved		
30. PRINTED NAME, RANK/GRADE, TITLE OF REVIEWER Kevin Kupferer/GS13/Human Research Subject Protection Expert	31. REVIEWER SIGNATURE KUPFERER, KEVIN R. 1086667270 <i>Digitally signed by KUPFERER, KEVIN R. 1086667270 DN: cn=KUPFERER, o=59 MDW, ou=59 MDW, email=kupferer.kevin@59mdw.mil, c=US Date: 2017.04.03 10:55:27 -0500</i>	32. DATE April 03, 2017
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41. COMMENTS ☒ APPROVED (In compliance with security and policy review directives.) ☐ DISAPPROVED		
42. PRINTED NAME, RANK/GRADE, TITLE OF REVIEWER Kevin Iinuma, SSgt/E-5, 59 MDW Public Affairs	43. REVIEWER SIGNATURE IINUMA, KEVIN.MITSUGU.1296227 613 <i>Digitally signed by KEVIN IINUMA, KEVIN.MITSUGU.1296227 DN: cn=IINUMA, o=59 MDW, ou=59 MDW, email=iinuma.kevin@59mdw.mil, c=US Date: 2017.04.07 04:00:24 -0500</i>	44. DATE April 07, 2017
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48. PRINTED NAME, RANK/GRADE, TITLE OF REVIEWER	49. REVIEWER SIGNATURE	50. DATE

Traumatic Brain Injury: Are We Conducting Enough Research?

Capt Mariya Gusman MD, Lt Col Jonathan A Sosnov MD, Jeffrey T Howard PhD

Background: Following an uptick in blast injuries, the past decade has seen a large-scale recategorization of what were previously thought of as benign 'concussions' into a significant subset of Traumatic Brain Injury (TBI). The expanded diagnosis has gained public recognition and research funding. However, this has yet to translate into a significant increase in treatment options. There have been concerns that a paucity of appropriate research is behind the lack of emerging treatments. As neurological disorders are notoriously complex, we set out to compare the state of TBI research to that of the 11 other most common neurological diagnoses.

Methods: We queried the Pubmed database from 1996-2016 for studies performed in the top 12 neurological diagnoses. The totals were segmented by randomized controlled trials (RCTs), diagnostic studies, and systematic reviews. A common econometric method known as the translog production function (TPF), was used to analyze the data. This method estimates the exponential growth rate of a given output as a function of a set of inputs. For the present study, the output was the number of published articles over time, within each diagnosis and study type. The TPF was specified as the $Number\ of\ Articles = Intercept^{e1} * Year^{e2}$, where $e1$ is the base of the natural log, approximately 2.718 and $e2$ is the exponential growth rate. General linear models were used to estimate the value of $e1$ and $e2$ for each diagnosis and type of study using SAS 9.4. The resulting growth rates were then compared.

Results: Of the 12 evaluated diagnoses, the highest rate of growth across all study types was seen in Autism Spectrum Disorder (ASD), whose current rate of total study growth was 2.08. Within subsets of ASD studies, the current rate of RCT growth was 1.91. TBI studies demonstrated a lower rate of RCT growth (0.79) and similarly slowing rates of diagnostic (0.72) and total (0.69) studies. Notably, the rate of systematic reviews of TBI continues to increase (1.17). This disparity of systematic review growth to RCT growth was not unique to TBI and was seen across all diagnoses other than ASD.

Conclusion: TBI research is second only to ASD research in its current rate of growth. However, the growth rate of publication of new RCTs, diagnostic studies, and total studies is slowing. Meanwhile, the rate of systematic review publications continues to increase. Although this is in line with findings seen across top neurology research fields, it suggests that a subset of information is being repeated at a rate higher than warranted by the development of supporting studies. This discrepancy quantifies the military need for continued funding of original TBI research as we work toward developing improved diagnostic and treatment modalities.

Disclaimers: *The views expressed are those of the author(s)/presenter(s) and do not reflect the official views or policy of the Department of Defense or its Components.*