

January 2020 NIDUS Newsletter

Network for Investigation of Delirium: Unifying Scientists



ADS 2019: NIDUS PIs wear many hats while promoting their mission to advance the science of delirium research!

Delirium Science and Research in the Next Decade

NIDUS sends best wishes for your new year and decade! In the next ten years we anticipate meaningful progress in advancing the science of delirium research. We thank our fellow delirium investigators, both new and experienced, for their dedication to this cause.

With our five-year NIA grant ending in 2021, plans are afoot to frame and fund NIDUS 2.0, extending this important work into the future. We look forward to keeping you updated as plans evolve.

Following are highlights from our NIDUS "cores." We hope you'll agree that 2020 looks to be a great year for NIDUS initiatives and outcomes!

Research Hub: The research team continues to build out this key resource with new studies entered into the Research Hub. Investigators can now find over 220 studies, with many more on the way. Work is also proceeding on a new animal studies hub. Our research team has programmed this new resource and will soon be entering data. Look for more on the animal studies hub in 2020.

<u>Pilot Grants</u>: In November of 2019 we received a record 41 applications for four, one-year pilot grant funding awards. NIDUS pilot grants are awarded to innovative thinkers who are going to break new ground in the science of delirium. The review process is currently underway and we hope to announce the awards during March 2020.

All applicants can take pride in their submissions, as "the quality was really outstanding," according to NIDUS PI Sharon Inouye, MD, MPH.

Measurement: The Delirium Tool Information Cards (for adult and pediatric delirium) are a widely used resource and reference for the field. Our Measurement team has completed a systematic review of delirium case identification instruments. Rich Jones, ScD, reports making great use of NIDUS's Research Hub to perform linkage analysis and to find collaborators for this project. Once the harmonization is finished, "we'll put together a really nice set of publications and another harmonization tool," says Jones. The Measurement team's output regarding this effort is eagerly anticipated!

<u>Career Development / Boot Camp:</u> This year the Delirium Research Boot Camp will again return to State College, Pennsylvania, providing intensive training in delirium research. Boot Camp 2020 dates are October 28-30.

Huge thanks to the Boot Camp team (including Eva Zeisky and Donna Fick) for leading this annual event with grace and commitment, and to

Please check out our <u>YouTube channel</u> for 2020 Boot Camp session recordings. You can also find recordings of all 2019 Webinars on the NIDUS YouTube channel.

Dissemination: NIDUS has been steadily increasing links with national organizations and stakeholder groups such as ADS, EDA, ANZDA, and AARP. You can help us grow our outreach efforts! Have an idea for a blog you'd like to write? Let us know! We're always looking for guest bloggers. If you know of key conferences and meetings or targeted media (newsletters, organizational websites, digital channels, etc.) that align with delirium research interests, please share them with us at nidus@hsl.harvard.edu. We can send powerpoint slides, resource handouts, business cards, and possibly a core team member to speak.

2020 American Delirium Society Annual Meeting June 14 - 16, Indianapolis, IN

The American Delirium Society's 2020 <u>meeting</u> will be in Indianapolis from June 14 to June 16 at the Westin Indianapolis. The deadline to reserve rooms at the conference rate is May 22. For more information please visit https://americandeliriumsociety.org/conferences.

NIDUS PILOT GRANT SPOTLIGHT

Flavia B. Garcez, MD University of São Paulo Medical School

Flavia Garcez is a NIDUS 2019 Pilot Grant Awardee, along with Luke Pilling, Anne Donovan, and Colm Cunningham. Here's Dr. Garcez describing her delirium research project.

and other neurocognitive disorders at the University of Sao Paulo Medical School. Most of my clinical work time is currently dedicated to hospitalized older adults, both at a private hospital and a public university hospital. The NIDUS pilot grant funding has helped me to investigate the association between microbiota and delirium occurrence in acutely ill older adults, along with my mentor Dr. Thiago Avelino-Silva.

The gut-brain axis knowingly plays a critical role in the development of chronic neuropsychiatric disorders. However, the association between the gut microbiota and acute brain disorders has been little explored, and its scrutiny might bring a new layer of understanding to the pathophysiology of delirium. The primary goal of this pilot is to demonstrate the biologic association between gut microbiota and acute confusional states, looking for important groundwork towards future research in the area of delirium mechanisms, biomarkers, and, hopefully, prevention and treatment.

It has been a challenge to conduct a study on microbiota in the emergency department but with an appropriate setting and a great team of nurses, physicians, nutritionists, and laboratory technicians, we are almost completing our recruitment period and will soon be moving to data analysis."

Olga Boukrina, January's featured blog author, on why she uses the Delirium Research Hub



"I have used the Hub to find studies that are conducting delirium research in stroke using

MRI. This helps to stay on top of the work that is being done elsewhere that is similar to my own. I find it even easier to use than ClinicalTrials.gov and the Research Hub yields a manageable set of results for review that are directly relevant to delirium research."

Olga Boukrina, PhD
 Research Scientist
 Center for Stroke Rehabilitation Research
 Kessler Foundation

Please find Dr. Boukrina's most recent <u>blog</u> on the "Possible Role for the CNS Arousal Network in Delirium" as the NIDUS featured blog for January.

Some recent offerings from NIDUS Pls!

Still Predicting Delirium After All These Years. Marcantonio ER. Anesth Analg. 2020 Jan;130(1):76-78. doi: 10.1213/ANE.00000000004487.

Recommendations for the nomenclature of cognitive change associated with anaesthesia and surgery-2018. Evered L, Silbert B, Knopman DS, Scott DA, DeKosky ST, Rasmussen LS, Oh ES, Crosby G, Berger M, Eckenhoff RG; Nomenclature Consensus Working Group. J Am Geriatr Soc. 2019 Dec;67(12):2587-2592. doi: 10.1111/jgs.16199. Epub 2019 Oct 12.

Related Disorders. Fong TG, Racine AM, Fick DM, Tabloski P, Gou Y, Schmitt EM, Hshieh TT, Metzger E, Bertrand SE, Marcantonio ER, Jones RN, Inouye SK. F1000Res. J Am Geriatr Soc. 2019 Dec;67(12):2587-2592. doi: 10.1111/jgs.16199. Epub 2019 Oct 12.

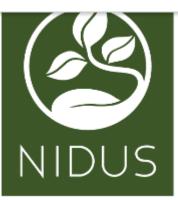
Biomarkers of Delirium Duration and Delirium Severity in the ICU. Khan BA, Perkins AJ, Prasad NK, Shekhar A, Campbell NL, Gao S, Wang S, Khan SH, Marcantonio ER, Twigg HL 3rd, Boustani MA. Alzheimers Dement. 2019 Nov 20. pii: S1552-5260(19)35476-7. doi: 10.1016/j.jalz.2019.09.080. [Epub ahead of print]

Apolipoprotein E genotype and the association between C-reactive protein and postoperative delirium: Importance of gene-protein interactions. Vasunilashorn SM, Ngo LH, Inouye SK, Fong TG, Jones RN, Dillon ST, Libermann TA, O'Connor M, Arnold SE, Xie Z, Marcantonio ER. Alzheimers Dement (Amst). 2019 Nov 6;11:752-762. doi: 10.1016/j.dadm.2019.09.004. eCollection 2019 Dec.

The Role of Inflammation after Surgery for Elders (RISE) study: Study design, procedures, and cohort profile. Hshieh TT, Vasunilashorn SM, D'Aquila ML, Arnold SE, Dickerson BC, Fong TG, Jones RN, Marcantonio ER, Schmitt EM, Xu G, Gou Y, Chen F, Kunze LJ, Vlassakov KV, Abdeen AR, Lange JK, Earp BE, Touroutoglou A, Carlyle BC, Kivisakk-Webb P, Travison TG, Dillon ST, Libermann TA, Inouye SK; RISE Study Group. J Am Geriatr Soc. 2019 Nov 19. doi: 10.1111/jgs.16246. [Epub ahead of print]

Antipsychotics and the Risk of Mortality or Cardiopulmonary Arrest in Hospitalized Adults. Basciotta M, Zhou W, Ngo L, Donnino M, Marcantonio ER, Herzig SJ. Qual Life Res. 2019 Sep;28(9):2565-2578. doi: 10.1007/s11136-019-02201-0. Epub 2019 May 17.

Sedative Plasma Concentrations and Delirium Risk in Critical Illness. Stollings JL, Thompson JL, Ferrell BA, Scheinin M, Wilkinson GR, Hughes CG, Shintani AK, Ely EW, Girard TD, Pandharipande PP, Patel MB.



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Encourage your mentees and colleagues to sign up and become a NIDUS member or to receive our announcements/newsletter.

For more information on NIDUS, please visit our website.

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About NIDUS

NIDUS is a collaborative research network dedicated to spurring innovation and new advances in delirium research through development of new research and measurement resources, training opportunities, pilot funding and dissemination of information. It is funded through an award from the National Institutes of Health/National Institute on Aging (grant no. R24AG054259).

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