ASNTR’s Venture into a Hybrid Conference: Lessons Learned During the COVID-19 Pandemic

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Abstract
The 28th American Society for Neural Therapy and Repair (ASNTR) returned to the Sheraton Sand Key in Clearwater Beach, Florida after an 18 month hiatus. Like nearly all conferences during the pandemic, the ASNTR conference was held in person while offering a virtual option to the event. These formats are advantageous for those under travel restrictions or personal constraints, but they lack the spontaneity of in-person connections. Highlights from the meeting included the return of the Bernard Sanberg Memorial Award and the Roy Bakay Memorial lecture. The presidential lecture was given by Gabriel de Erausquin, who discussed the possibility of long-term CNS effects resulting from SARS-CoV2 infection. With both virtual and in-person events, including oral and poster presentations, the ASNTR managed to maintain the unique essence of this small important meeting.

Keywords
Covid 19, pandemic, hybrid, virtual, neural therapy

Introduction
Like the annual return of the manatee to warmer waters, nearly a hundred world class scientists returned to Florida for their annual exchange of ideas, presentation of new developments, and the fostering of new collaborations during the 28th Annual Conference of the American Society for Neural Therapy and Repair (ASNTR), held at the Sheraton Sand Key in Clearwater Beach, Florida.

Even though the ASNTR meeting was held in-person, it offered an optional virtual attendance creating its first hybrid event. The COVID-19 pandemic cancelled the 2020 meeting but 18 months later, the ASNTR, like many scientific meetings, rose to the ongoing challenge by encouraging participants to meet in-person or virtually. For these authors, it was our first in-person conference since 2019.

The Hybrid Format
Hybrid meetings have become almost essential during the pandemic. Many researchers were unable to attend the ASNTR meeting in-person because of international or institutional restrictions. Others researchers were held back because of children too young to be vaccinated and did not want to risk the travel. Several clinician scientists reported that the increased number of hospitalized COVID-19 patients would not afford them the time away. Many of these researchers, then, were able to attend virtually.

The reasons for virtual attendance at the ASNTR meeting reflect common themes in this new era of scientific conferences. Data collected from international dermatology as well as oncology conferences found virtual conferences can:

1. increase international participation in an era of travel restrictions
2. allows flexible “attendance” with on-demand access
3. ease conference costs
4. reduces the carbon footprint

In addition, virtual conferences let attendees the time and opportunity to really review scholarly work through on-

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demand access. This could be a substantial benefit to trainees and young investigators, and may help advance educational webinars and meetings\textsuperscript{4,5}, such as the ASNTR trainee workshop looking at career development in and out of academia.

The lack of face-to-face networking though may counter some conference benefits. At critical time points in career development, the in-person experience is almost essential for early stage investigators and graduate students, when the chance to present their own research (in-person) brings a more dynamic interaction and the opportunity for unscripted connections with more seasoned investigators. One possible solution to the in-person vs. on-demand dilemma, which could balance the benefits of both suggests Bousema et al., would be for researchers to alternate their attendance between virtual and in-person events\textsuperscript{1}.

The ASNTR’s Format

Since the founding of the ASNTR about 30 years ago by John R. Sladek (University of Colorado Anschutz Medical Campus) and Paul R. Sanberg (University of South Florida), it has been a small but intimate collection of researchers from all levels of academia and industry, loyal to the singular goal of improving neural therapies and transplant approaches. In the past, the casual demeanor of the in-person meeting created an atmosphere where ideas could be shared and collaborations formed as easily over a conference table as a beach umbrella. The in-person aspect has been a lasting strength of the conference.

Thus, moving to a hybrid format proved challenging but despite this the ASNTR hosted 73 live attendees, including 17 travel award recipients, and over 25 virtual attendees and guests. The scientific program included live and virtual oral presentations and posters, as well as a data blitz session and a virtual presentation by Zeiss on brain imaging.

The meeting was led virtually by Li-Ru Zhao (SUNY Upstate Medical University), as current president, and by president-elect, Michael Lane (Drexel University College of Medicine) who hosted in person. This was a unique and successfully executed leadership approach. Dr. Zhao and Dr. Lane were very involved in their roles. The duo oversaw a variety of presentations some with unique and/or timely insights, such as exploring the brain-gut axis in Parkinson’s disease or the neuro-sequela of SARS-CoV2 infection. As in the past, the range of presented topics was broad and included:

- Neurodegenerative disorders
  - Alzheimer’s disease
  - Parkinson’s disease
  - Huntington’s disease
  - Fragile X disease
  - ALS
  - Traumatic brain injury
  - Spinal cord injury
  - Ischemic stroke

- Tau-opathies
- Vascular dementia
- Angelman syndrome
- COVID-19
- Cell reprogramming and replacement options
  - umbilical cord blood
  - mesenchymal stem cells
  - interspecies chimeric cells
  - induced pluripotent stem cells
  - bone marrow derived stem cells
  - interneurons

- Technologies
  - hydrogel scaffolding
  - response biomarkers for cell replacement strategies
  - deep brain stimulation
  - optimizing MRIs

ASNTR highlights returned

This year’s ASNTR presidential lecture was given by Gabriel de Erausquin (University of Texas Health San Antonio) entitled “Could COVID-19 increase your risk of dementia?”\textsuperscript{6}. Here, Dr. de Erausquin highlighted the potential for future cognitive decline resulting from SARS-CoV2 infection. He pointed out that this idea is not without precedence, where CNS degeneration emerged later in some patients during the 1918 influenza pandemic. Furthermore, both neurons and glia express ACE2, the receptor by which coronaviruses like SARS-CoV2 gain access to cells\textsuperscript{7}.

For the first time since 2019, the Bernard Sanberg Memorial Award\textsuperscript{8} was presented to Walter Low (University of Minnesota), for his distinguished career in cell therapy and regenerative medicine. Dr. Low joins an elite group of 21 previous recipients for this award which started in 2000, to honor the late father of ASNTR co-founder Paul Sanberg.

Nicholas Boulis (Emory University) was invited to give the Roy Bakay Memorial lecture\textsuperscript{9}. The privilege of this lecture and award is given to notable clinician scientists who reflect the ideals of the late Dr. Roy Bakay\textsuperscript{10}, who passed in 2013 from cancer. Dr. Boulis’ presentation was titled “Development of cellular and molecular surgery for ALS.”

Additionally, the 2nd annual Paul J Reier Award was given to Ines Maldonado-Lasuncion (University of Chicago and Vrije Universiteit Amsterdam). This award is so named to honor senior investigator, Paul J. Reier, who continues to make a remarkable contribution to spinal cord and neurotrauma research at the University of Florida. The award it unique in that it is presented to an early career investigator with excellent presentation skills during the ASNTR meeting. Ines Maldonado-Lasuncion, PhD candidate, gave a talk entitled “Mesenchymal stromal cells, inflammatory priming, and spinal cord repair.” In it she discussed the role of inflammatory priming of mesenchymal stem cells prior to transplant in spinal cord injury.
Sponsors for the ASNTR meeting included USF Research and Innovation, Florida High Tech Corridor Council, Zeiss, and the Marrion Murry Spinal Cord Research Center. Non-profit sponsors included the Lisa Dean Moseley Foundation, Wings for Life Spinal Cord Research Foundations, Cure CADASIL, and the Dementia Society of America. Funds from NINDS supported trainee education (1R13NS118601-01; Kyle Fink, UCD).

Concluding Thoughts on a Hybrid Conference

The take away message from the 2021 ASNTR conference from society members and attendees was that they missed the in-person experience. I, the first author, particularly liked the many spontaneous discussions held outside of formal sessions regarding the translation of research towards patents, licensing, and commercialization among students, faculty, and industry representatives\(^\text{11}\). It could be argued that a small focused in-person meeting held annually at the same conference venue generates a sense of familiarity that allows for more deep exchange in real time.

Even though it is not ideal, the fact that ASNTR successfully supported a hybrid meeting bodes well for other small conferences. A hybrid conference does not have to completely eliminate the greatest strength of the small conference if researchers are willing to alternate between live and virtual attendance.

Future Meetings

The 29th ASNTR conference is scheduled to return to its standard spring time frame, April 28-May1, 2022. In-person programs will be held in Clearwater, Florida. The decision to make it a hybrid conference will depend, like the last two years, on the COVID-19 pandemic.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Ethical Approval

This study was approved by our institutional review board.

Statement of Human and Animal Rights

This article does not contain any studies with human or animal subjects.

Statement of Informed Consent

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References

1. Bousema T, Selvaraj P, Djimde AA, Yakar D, Hagedorn B, Pratt A, Barret D, Whitfield K, Cohen JM. Reducing the carbon footprint of academic conferences: the example of the american society of tropical medicine and hygiene. Am J Trop Med Hyg. 2020;103(5):1758–1761.
2. Ha ES, Hong JY, Lim SS, Soyer HP, Mun JH. The impact of SARS-CoV-2 (COVID-19) pandemic on international dermatology conferences in 2020. Front Med (Lausanne). 2021;8:726037.
3. Nelson BA, Lapen K, Schultz O, Nangachievteelt J, Braunstein SE, Fernandez C, Fields EC, Gunther JR, Jeans E, Jimenez RB, Kharofa JR, et al. The radiation oncology education collaborative study group 2020 spring symposium: is virtual the new reality? Int J Radiat Oncol Biol Phys. 2021;110(2):315–321.
4. Vinchenzo P, Nabavi N, Tracy DK. ‘Choose Psychiatry’ goes virtual: experiences and learning from the online 2020 national psychiatry summer school. BJPsych Bull. 2021:1–7.
5. McMahon CJ, Tretter JT, Faulkner T, Krishna Kumar R, Redington AN, Windram JD. Are e-learning webinars the future of medical education? an exploratory study of a disruptive innovation in the COVID-19 era. Cardiol Young. 2021;31(5):734–743.
6. de Erausquin GA, Snyder H, Carrillo M, Hosseini AA, Brugha TS, Seshadri S, Consortium CSC. The chronic neuropsychiatric sequelae of COVID-19: The need for a prospective study of viral impact on brain functioning. Alzheimers Dement. 2021;17(6):1056–1065.
7. Tremblay ME, Madore C, Bordeleau M, Tian L, Verkrhatsky A. Neuropathobiology of COVID-19: the role for glia. Front Cell Neurosci. 2020;14:592214.
8. Sanberg PR, Sanberg CD. A ‘stroke’ of genius: celebrating the 20-year anniversary of the Bernard Sanberg memorial award for brain repair. Regen Med. 2019;14(9):811–813.
9. Kordower JH. In memorium: Roy A.E. Bakay, MD. Mov Disord. 2013;28(13):1809–1810.
10. Hockenberry J. The next brainiacs. Wired. 2001;9(8):94–105.
11. Sanberg PR, Gharib M, Harker PT, Kaler EW, Marchase RB, Sands TD, Arshadi N, Sarkar S. Changing the academic culture: valuing patents and commercialization toward tenure and career advancement. Proc Natl Acad Sci U S A. 2014;111(18):6542–6547.