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“The time is now”: Integrating neuroscience into psychiatry training

David A. Ross^{a,*}, Melissa R. Arbuckle^b, and Michael J. Travis^c

^aDepartment of Psychiatry, Yale School of Medicine, 300 George Street, Suite 901, New Haven, CT 06511, United States

^bDepartment of Psychiatry, Columbia University College of Physicians and Surgeons, United States

^cDepartment of Psychiatry, University of Pittsburgh Medical Center, United States

This is an extraordinary time for psychiatry, as new research in neuroscience is re-defining the essence of how we conceptualize psychiatric illness. In this issue, Torous et al. (2015) have written a significant paper that captures at once the excitement of new work in the field and the importance of meaningfully incorporating this perspective into both clinical and educational settings. The authors also review some of the many challenges to doing so effectively.

The authors' work comes at a time when many academics are wrestling with this same question and the authors refer to various ongoing efforts seeking to address this practice gap. One such program is the National Neuroscience Curriculum Initiative (Ross et al., 2015; www.NNCIonline.org). The NNCI was formally launched in March of 2014 with the overarching goal of creating a set of open resources that will help improve the teaching of neuroscience in psychiatry. Similar to Torous et al.'s goal of helping trainees “bridge, in real-time, brain-symptom relationships in psychiatry”, the NNCI sets as a central objective that “residents will incorporate a modern neuroscience perspective as a core component of every formulation and treatment plan.” Additional learning objectives relate to relevant knowledge, attitudes towards neuroscience, and specific behavioral skills – including that residents will be able to serve as *Ambassadors of Neuroscience who can thoughtfully communicate findings from the field to different audiences*.

The core work of the NNCI has been the creation of educational resources that can be used as in-class teaching and learning activities for residency programs. The guiding principles for these resources are: to maintain an integrative, patient centered approach; to teach well, by applying adult learning theory; and to create an adaptable frame that can be easily implemented by *anyone, anywhere*. To this end, each course has a comprehensive Facilitator's Guide that includes detailed instructions for implementation, sample scripts that can be used in class, additional background readings, and, in many cases, videos of a neuroscience and/or education expert teaching that exact session.

*Corresponding author. david.a.ross@yale.edu (D.A. Ross).

To date, the NNCI has developed six separate teaching “modules”, each of which reflects one potential paradigm by which one *could* teach neuroscience effectively. Each module is designed to offer a structure through which a wide range of content can be taught as individual sessions. Critically, the course frame also enables materials to be flexibly updated as content continues to evolve.

While much of the NNCI effort has so far been aimed at facilitating in-class teaching and learning for psychiatry residents, we are mindful of the value the initiative may have for other populations (including medical students and community clinicians). To this end, all NNCI resources are freely available via a website, including a rapidly expanding set of self-study materials. We are also developing teaching resources that are designed to engage more diverse audiences with the critical process of incorporating specific neuroscience findings directly into clinical practice.

Importantly, the NNCI reflects a collaborative effort. The core leadership team is comprised of clinician educators from four large university programs. This effort would not be possible without the financial support of the NIMH. We have also established relationships with the American Association of Directors of Psychiatric Residency Training, the American Psychiatric Association Council on Medical Education and Lifelong Learning, the Society of Biological Psychiatry, and the American College of Neuropsychopharmacology. We continue to seek partnership from other individuals and organizations that share a common interest and vision.

In the year since its formal launch, the NNCI has been met with warmth and approval from the academic community. We believe this speaks to training directors’ belief in the importance of the mission (Benjamin et al., 2014) and also their motivation to update their curricula (in line with the various recent data reviewed by Torous et al., in the introduction to their paper). More than 30 residency programs have already incorporated NNCI resources into their curricula and more than 200 individuals have signed up as members of the NNCI Learning Collaborative. We have also received more than 50 submissions of new content that we are actively reviewing and editing.

Torous et al. write: “the time is now for residents, educators and like-minded academic psychiatrists to develop a culture of embracing cognitive-affective neuroscience and neuropsychiatry to expedite the “bench-to-bedside” translation of brain-symptom relationships to help guide clinical thinking and future innovative therapeutic interventions.”

We agree wholeheartedly and hope that key stakeholders will continue to explore collaborative approaches for addressing this critical mission.

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