The Clinical and Translational Science “Tent”

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The challenge for any journal is to insure that it addresses the needs of the community that it serves.

This has been an especially daunting task for a journal focused on the clinical and translational sciences because of the great diversity in interests and talents of the many individuals who sit beneath the clinical and translational science “tent.” In the simplest context, participants in clinical and translational science can be described

as individuals who pursue research in the basic sciences (T1), the clinical sciences (T2), or in the translation of new discoveries to the community (T3). However, in many ways this is an over-simplification of a complex situation. “Basic” research can encompass a wide range of topics from identifying the fundamental signaling pathways that regulate cellular growth or development to the identification of genomic mutations or changes in the proteome that are associated with phenotypic changes in mouse models. Similarly, clinical science can include a wide range of objectives including assessment of the efficacy of new drugs and devices, identification of the role of biomarkers, or the impact of genotype on either the incidence of disease or on an individual patient’s response to therapy.

One of the more difficult disciplines to wrap one’s hands around is what has been described as the T3 of translational medicine. T3 is composed of a relatively diverse group of sciences that include but are not limited to scholarly pursuits in health care delivery, health care economics, community-based clinical research, outcomes research, epidemiology, the social sciences, postgraduate medical education, community education, educational programs to enhance the interest in primary and secondary school students in the sciences, comparative-effectiveness studies, and innovative efforts to enhance the number of minority medical students. Some individuals have suggested that the translational medicine lexicon should include an additional subcategory, T4, that would include studies in health policy and comparative-effectiveness research. However, this nomenclature has not been generally accepted within the translational medicine community and many believe that studies in all areas of public health policy remain a key part of T3 translational research. In particular, we believe that comparative-effectiveness research will require a careful bridging of the science and informatics of traditional research with the goals of comparative-effectiveness research which though slightly different will still need to rest on the foundation of clinical research.

T4 research does carry some limitations that have not been part of traditional T2 research. For example, regulatory requirements may hinder the publication of results from outcome research studies. Despite the fact that data from such studies are de-identified, current regulations require that each patient whose data is included in the study sign a consent form. This requires that each patient sign a consent form to have their data stored in a databank at the time

of their admission to the hospital—a process that is difficult to effect at many hospitals. Investigations in the T4 of translational research are also a relatively new field and as such, the criteria for the development of study algorithms and the most effective means of data storage, analysis, and interpretation are still being formulated. Finally, T4 research may also be hindered by a less than robust number of funding opportunities. For example, industry, the NIH, and specialty foundations have not shown a likelihood of supporting comparative-effectiveness trials to date.

So, how can CTS insure that T3 investigations are included within our community of readers, educate our community about the ongoing changes in T3 research, help to provide a platform for communication amongst the T3 community, and work to insure that T3 remains a critical component of translational research? CTS will take a three-pronged approach. First, we have invited a group of T3 scholars to join our editorial board. Leading this group will be Dr. Harry P. Selker, Executive Director for the Institute for Clinical Research and Health Policy Studies, Chief of the Division of Clinical Care Research and Director of the Center for Cardiovascular Health Services Research at Tufts Medical Center to serve as an Executive Editor of the journal. Second, with the help of this new group of editorial board members, we hope to solicit leading articles in the field of T3 research. For example, in this issue of the journal we present one of a series of articles on a fascinating T3 project at the University of Pittsburgh. Led by Dr. Robert Branch, the group in Pittsburgh has initiated a collaborative program with the state of West Virginia and its secondary school program. By teaching students about clinical research, research ethics, and regulatory requirements, the CTS group at Pittsburgh has put together a statewide group of community-based investigators while at the same time introducing a group of secondary school students to the excitement and intellectual rewards of translational research. Finally, as part of our larger efforts to enhance the ability of CTSA trainees to enhance their skills at scientific writing, we will work with the leadership of the CTSA educational committee to identify a cadre of trainees at the various CTSA centers across the United States who have focused their research on T3 and provide them with the opportunity to write review articles in their area of interest that are directed at educating the CTS readership that is more comfortable in the areas of T1 and/or T2 research.

Translational research remains an exciting and constantly evolving field of science that has the capacity to have a dramatic impact on the health and well being of all Americans. For the national initiatives to be successful, many stakeholders in translational research must work collaboratively to link the three components—T1, T2, and T3—as a bidirectional highway of information exchange. We believe that the efforts of this journal will help to fulfill our goal as a communication platform for these exchanges. I look forward to your help in this endeavor and to your suggestions on how best to insure that we have included all members of our community under our journal’s “tent.” **CTS**

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DOI: 10.1111/j.1752-8062.2009.00171.x