NIH CTSA/NCATS INTEGRATION WORKING GROUP RECOMMENDATIONS

MEMBERSHIP

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INTRODUCTION

The NIH Clinical and Translational Science Awards (CTSAs) will be an essential component of the proposed National Center for Advancing Translational Sciences (NCATS). As such, the NIH Director convened the CTSA/NCATS Integration Working Group on April 11, 2011, to recommend a strategy for ensuring that the CTSAs most effectively contribute to the mission of this new Center. The specific charge to this group was to: (1) enumerate the roles and capabilities of the CTSAs that can support and enhance the mission of NCATS; (2) identify CTSA needs and priorities; and (3) propose processes for ensuring a smooth transition from the National Center of Research Resources (NCRR) to NCATS. In carrying out this charge, the NIH CTSA/NCATS Integration Working Group was encouraged to consult with CTSA leadership, NCRR leadership, and CTSA program staff.

DELIBERATIVE PROCESS

The working group met 11 times and held 4 joint meetings with the CTSA Consortium Executive Committee (CCEC) comprising 10 CTSA principal investigators. The NIH Director met with the Working Group on two separate occasions; on April 11, 2011, he issued the charge to the Working Group and on July 21, 2011, he met with both the Working Group and the CCEC to describe the vision for NCATS and address questions and concerns regarding his vision for the future of the CTSA program.

At its June 6, 2011 meeting, the Working Group met with NCRR leadership and CTSA program staff. The working group also took into consideration a collection of responses submitted by the CTSAs aimed at developing a collective understanding of the breadth and capabilities of the CTSAs in the context of the NCATS mission. These responses were collected by the CCEC and shared with the NIH Working Group. The final joint meeting with the CCEC gave both groups the opportunity to review the information and, in light of the responses, discuss strategies for integrating the CTSA program into the new center.

FINDINGS

The CTSA program originated as a response to expressed needs for "reengineering the clinical research enterprise." Awards are issued to individual institutions on the basis of nine key components, with the added requirement that awardees will create a national clinical research consortium. A total of sixty, five-year awards have been phased in over the past five years and the first cohort, comprising 12 institutions, recently competed for renewal of funding. With the

program successfully funding its original target number of awards, now is an appropriate time to conduct a thorough evaluation of the CTSA program as a whole. As such, Working Group members agreed that the proposal to establish NCATS serves as a catalyst for undertaking a deeper analysis of the activities, challenges, and successes of the CTSA program.

Throughout the course of its analysis, Working Group members were struck by the observation that individual CTSAs vary dramatically, with each demonstrating its own strengths and challenges. These differences, in part, can be attributed to variability in local resources, as CTSA funds are typically highly leveraged within recipient institutions and constitute a large investment from both the academic institution and the NIH. The Working Group noted that many entities are invested in the success of the CTSA program, including the recipient institutions, the CTSA consortium, the proposed NCATS, and other NIH Institutes and Centers (ICs). While many goals are shared across these entities, the Working Group remained cognizant that, at times, competing interests are at play.

Individual Institutional Infrastructure versus Consortium Activities
A challenging issue for CTSA leadership has been achieving an optimal balance between supporting local institutional needs and creating a national network of information, resources, and expertise. In general, members agreed that the program has yet to effectively coordinate individual strengths on a national level; noting that major impediments to the success of a true CTSA consortium have been the absence of dedicated funds and the need to divert funds from institutional activities to support consortium activities. Members agreed that that the formation of a Coordinating Center is a step in the right direction, but a stronger consortium will be needed to achieve the intended goals of the CTSA program. In assessing a broader vision for the individual CTSAs and the consortium as a whole, the Working Group agreed that both the scientific vision for NCATS and the current functions/roles of the CTSAs must be taken into consideration.

The Working Group also reiterated the fact that the CTSA program was created in response to expressed needs at institutions to carry out translational research supported by the NIH and other public and private funders. For this reason, the Working Group determined that any recommendations issued should take into consideration how to optimally support the clinical research framework at these institutions while increasing their collective ability to participate in consortia that will enhance and accelerate clinical and translational medicine regardless of the sources of funding.

CTSA-Initiated Changes in Research Infrastructure
The receipt of a CTSA has prompted many institutions to aggregate clinical research programs under a unified program, ultimately elevating the profile of clinical research. The components common to all CTSAs are coordinated programs in training early-stage clinical investigators; faculty and support staff for patient research in inpatient (and sometimes outpatient) settings; biostatistics and bioethics consultation; and pilot funding for specific research projects, community outreach, and bioinformatics. Clinical research resources afforded by the CTSA program are distributed across the spectrum of research – more so than those supported by the program's predecessor, the General Clinical Research Centers (CGRCs) program. However, because CTSA funds are meant to cover a broader spectrum of the clinical and translational research, many institutions now charge for the use of clinical research resources that were previously provided at no cost. A relatively CTSA-

specific activity has been the initiation of bioinformatics programs and new bioinformatics hires at many institutions. In many cases, these have concentrated on transforming medical record data and institutional research activities and resources into searchable databases. The CTSA requirement for community outreach has led many institutions to develop or strengthen community-based research, though this is one of the most highly variable aspects of the CTSAs. CTSA resources have often been used to raise additional funds for these infrastructure activities which are not easily supported by other NIH grant mechanisms.

Spectrum of Translational Research Supported by CTSA Infrastructure
The CTSA infrastructure currently supports the entire range of translational research, including therapeutics development, clinical trial support, and community outreach. Members of both the Working Group and the CCEC support continued involvement of the CTSAs and NCATS in the entire spectrum of clinical research. Current activities focusing on therapeutics development at CTSAs include pilot programs that support clinical development of laboratory-based projects and, at some institutions, alliances with engineering schools to assist with technology development. However, the nuts and bolts of the development of new therapies – i.e., high throughput screening, assay development, pKpD, toxicology, commercialization plan, alliances with biotechnology industry, project management, regulatory resources, coordination with office of technology transfer, animal testing facilities, etc. – have not been a major focus of the CTSA program. These activities exist to varying degrees at individual CTSA institutions. Training programs have also focused primarily on clinical research methodology, epidemiology, biostatistics, and clinical trial design, as opposed to cultivating the skills required for developing new therapeutics and diagnostics.

RECOMMENDATIONS
To maximize the success of the CTSA program's integration into NCATS, the CTSA/NCATS Working Group recommends that the CTSA program:

1. Continue to provide infrastructure supporting the full spectrum of translational research while encouraging CTSA institutions to develop their unique strengths. The Working Group agreed that there are essential core components that are critical to the conduct of translational science and should be baseline requirements in future RFAs. The Working Group concluded that the existing funding process does not create sufficient incentives for CTSAs to develop innovative approaches in specific areas. For this reason, the Working Group suggests that in future RFAs, the application requirements and evaluation criteria should allow each CTSA to develop unique strengths.

2. Strengthen CTSA consortia activities. The Working Group noted that the recent establishment of a Coordinating Center is an important step in strengthening CTSA consortia activities. Moreover, an additional benefit of encouraging each CTSA to cultivate its own strengths while relying upon other CTSA sites for support in areas in which it does not excel is the potential to minimize redundancy and facilitate the formation of a Consortium that is stronger as a whole. To build upon this further, some portion of individual CTSA program funds should be dedicated to consortia activities, on both national and regional levels. It also will be critical for NCATS to monitor the landscape for critical translational research needs and to have funds reserved to direct CTSA consortium activities on an as needed basis in support of the NCATS mission.

3. Strengthen mechanisms for enabling IC-CTSA interactions. The Working Group concluded that widespread utilization of the CTSA resources to facilitate IC-supported research has yet to be achieved. To harness the full capabilities of the robust CTSA network, mechanisms for interaction should be strengthened, including the development of suitable processes that allow the investment of IC funds in project-specific research, which will leverage the existing resources.

4. Evaluate each institutional award on its performance and allocate funds accordingly. The Working Group noted that the amount of funds allocated for each CTSA has been determined by a legacy formula based on GCRCs, training programs, and institutional K awards previously funded within the institution. The Working Group recommends that the CTSA program develop a revised process to determine individual CTSA funding levels based on performance measures that align with the goals of NCATS.

5. Allow current CTSA awardees to submit revisions to current awards prior to their anticipated renewal date. In light of the proposed changes to future CTSA RFAs, the Working Group recommends that current recipients of CTSAs should be afforded the opportunity to revise their current grants in order to reallocate resources - if desired - to enhance their strengths. These revised applications will be subjected to review.

6. Develop an explicit process for exchanging information. The CTSAs will continue to seek guidance about the priorities, functions, and expectations of NCATS as they further evolve. To ensure a smooth transition of the program into the new Center, the Working Group recommends that the CCEC remain a point of contact for engaging this community.

CONCLUSIONS

The CTSA program offers invaluable resources for conducting and supporting clinical and translational science research, much of which will be essential in realizing the NCATS mission. In doing so, NCATS must be linked not only to basic and translational research in the categorical ICs, but to the broader resources available at academic and health care organizations. Because the CTSA program is relatively new and limited in resources, each CTSA still struggles with achieving an optimal balance between supporting local institutional needs and creating a national network of information, resources and expertise. Flexibility in the application process in tandem with set-aside funds for NCATS driven research projects would afford each CTSA with the ability to highlight its strengths while contributing to the success of the enterprise in its entirety. NCATS leadership should capitalize upon these opportunities as it transitions the CTSAs into the new Center.