

Proposed Action Plan
for
Strengthening Research at the
University of Arizona
College of Medicine-Tucson (COM-T)

COM-T Dean's Research Council (DRC)
2021-22 Report

Approved by unanimous DRC vote and acclamation, June 14, 2022

Respectfully submitted to the COM-T dean and faculty, July 2022

Introduction

The College of Medicine Dean's Research Counsel (DRC) is a standing committee elected by the voting College of Medicine-Tucson (COM-T) faculty. Because it is a standing committee, DRC governing rules were determined by the Voting Faculty at the time of DRC creation and can only be abolished by a majority vote of the Voting Faculty. The Council is comprised of fifteen faculty members with fully established and active research programs and track records of productivity, serving for a term of five years with at least one-quarter of the members from basic science departments and one-quarter from clinical departments. As per posted information on the [COM-T website](#), the role of the DRC is: 1) to "advise the Dean of the College of Medicine on matters pertaining to the research programs of the College of Medicine (e.g., space, faculty career development awards, core facility funding, faculty start-up funds, conflict of interest, legislation, animal welfare/animal rights, indirect cost recovery policy, technology transfer, interdisciplinary programs, and future strategies)"; and 2) to "develop research policy for the College of Medicine that is disseminated to the research community via the Research Office".

DRC 2021-22 (FY21) Goals

Consistent with DRC's charter, the DRC at the start of FY21 focused its attention on identifying systemic barriers to research success for COM-T faculty (clinical and basic), followed by the development of strategic aims and actionable solutions to reduce barriers and enhance engagement and research productivity.

DRC 2021-22 Accomplishments

1. Establishment of policy governing review of COM-T research grants and awards

A subcommittee was convened to draft proposed policies governing review of COM-T research grant submissions and research award applications with the goal of standardizing review processes, enhancing transparency, and minimizing conflicts of interest, consistent with good practices and the review policies in other University of Arizona (UA) units. Following discussion and amendment by the full DRC, a final document outlining proposed best practices was adopted by unanimous vote on October 5, 2021 and submitted to the COM-T Deputy Dean for Research with the recommendation that the COM-T adopt the proposed guidelines. Consistent with the guidelines, the DRC stepped away from assuming responsibility for review of COM-T research and award applications with the goal of enhancing transparency and ensuring a wider breadth of expert review, while minimizing any conflicts of interest, perceived or real.

2. Committee structure and organization

A procedure for DRC meeting minutes to be distributed to all members for approval prior to being made available to COM-T faculty upon request was established. The departure of several DRC members due to competing commitments raised questions regarding DRC term limits and vacancies. The DRC uniquely has a 5-year term (vs 2-4 for other COM-T committees). COM-T bylaws governing vacancies in *standing* committees, such as the DRC, are currently absent; rules clarifying whether a partial term service counts as a full term towards the standard consecutive 2-term limit are not spelled out; and bylaws do not address possible exclusions from committee service of faculty with head/chief in their titles. The DRC engaged with the Nominating Committee (NC) to address these issues. The NC solicited input from all committees with > 3-year terms on suggested term limit changes; DRC members favored a reduction from 5-years to 3- or 4-year terms, which was communicated to the NC.

3. Establishment of Action Plan to Strengthen COM-T Research

A working group was created to establish strategic goals. Input from all DRC members was then solicited throughout the year to identify and discuss possible action items to meet goals, including *ad hoc* members with expertise in different aspects of clinical research and training, and additional stakeholders, such as:

- Dr. Jamie Boehmer, Executive Director for Biomedical, Clinical & Health Sciences Research

Development at the UA (RII),

- Dr. Keith Joiner, director of the new Scholarly Projects program, and
- Lauren Zajac, Associate Vice President for Research Administration, Arizona Health Sciences Center.

Additional input and information were sought by DRC members from other resources, including:

- Mariette Marsh, Assistant Vice President, UA Regulatory Affairs and Safety;
- Dave Bruzzese, Executive Director of COM-T Brand Communications;
- Ross DuBois, Manager, COM-T Special Projects;
- Ashley Oliveros, Coordinator Research Events (RII);
- Chante Martin, Assistant Vice President, UA Human Resources; and
- Ed Xia, Assistant Dean, COM-T ITS.

All information obtained was presented and discussed by the DRC. Serious consideration was given to DRC undertaking some proposed actions. However, upon further exploration of required resources, which are not available to the DRC (e.g., dedicated effort, funding, and support staff), and in light of the DRC's essential function as being advisory to the COM-T Dean, the decision was made to report out a proposed action plan for strengthening COM-T research, as described herein, to both the COM-T Dean and the COM-T faculty, whom we represent.

Action Plan

To strengthen COM-T research, overarching strategic goals were identified:

1) To reduce barriers to clinical and translational research specifically faced by clinical faculty.

With respect to clinical faculty, the DRC recognizes that the clinical compensation plan de-incentivizes research efforts and creates significant barriers, some of which COM-T/Banner is working to address. While this overriding issue cannot be easily addressed by a DRC action plan, much can still be done, including:

- streamlining processes and providing infrastructural support for actual research (e.g., optimizing processes based on faculty input; providing user-friendly guides [e.g., webinars] for faculty, particularly those without dedicated support staff, to clarify UA/Banner regulatory pathways; support for EHR research design and implementation); and
- leveraging the expertise of all COM-T faculty via clinical/basic partnerships to create efficiencies to allow for greater research engagement by clinical faculty. By enhancing and valuing clinical faculty research engagement on all levels, not limited to extramurally funded research, the research enterprise and culture of creativity and discovery of the entire COM-T is elevated and our ability to attract—and retain—extramurally-funded clinical and translational researchers in whom significant institutional resources are assigned, and to recruit and support research-interested academic clinical faculty will be improved.

2) To strengthen research output for all COM-T faculty by facilitating faculty-to-faculty interactions (e.g., basic/clinical), initiating programmatic and infrastructure reforms to promote research, and optimizing information flow and transparency.

Consistent with the COM-T strategic plan, which acknowledges that a “sense of shared purpose, shared responsibility and accountability towards a collective destiny” is required to advance the COM-T’s tripartite mission, DRC’s proposed action plan to strengthen research is focused on enhancing faculty engagement through collaboration and empowerment, and through access to information and improved research and programmatic resources.

To address these related overarching aims, the DRC proposes the following actionable items:

1. Cultivate faculty collaborations, including basic/clinical partnerships

- Organize and support (via COM-T and/or RII) disease-based or topical workshops/working groups to forge new partnerships, particularly in areas for which extramural funding opportunities can be identified and complementary UA expertise with diverse strengths, involving both basic and clinical faculty, is available but underdeveloped.
 - Examples of possible topics: Obesity/metabolic disorders/diabetes; musculoskeletal diseases; AI; role of reproductive hormones in health and disease; drug discovery and novel formulations
- Questionnaire sessions or segments in other COM-T faculty meetings: Faculty present/share short statement of their primary research question (no data) to jump start novel interactions with minimal time commitment; data can be curated and made searchable. Or other “match-making” events.
- Leverage and share existing faculty and researcher expertise for practical “How-To” faculty-led panels/workshops related to the *conduct* of research (not regulatory aspects), curating sessions to be readily available online. Topics could include:
 - EHR-based projects,
 - case reports,
 - support for new investigators or basic scientists new to clinical settings,
 - navigating NIH/NSF reviews,
 - how to prepare study protocols and study documents for clinical research,
 - submitting NIH supplements,
 - writing training grants,
 - REDcaps use for observational studies or surveys, etc.
 - with a focus on the conduct of research, not regulatory aspects. Curate sessions and make them available online.
- Seminar series for clinical researchers in need of practical training: see UACC CRTEC Clinical Research Training Series as a model.
- Seed funding for clinical/basic partnerships or topic-based collaborations; See UACC grants program as a model.
- Bridge funding and “within reach” funding for high scoring but unfunded proposals.
- Solicit (and act on) information from faculty on unmet needs/perceived barriers to develop additional actionable items using:
 - Online surveys;
 - COM-T faculty meetings;
 - Apps;
 - Focus groups/listening sessions/moderated discussions [department-based or other];
 - Exit interviews (e.g., deidentified data from Faculty Affairs)
 - A survey of research-inactive clinical faculty to ascertain and identify those interested in being research active and barriers to same would be an important part of this exercise.

2. Infrastructure creation/reforms

- EHR based research: mid-level research staff to design/assist with conduct of research
 - Example: invite [Vanderbilt Clinical Informatics Center](#) as model for how to use core services to bridge the gap between operational IT and researchers to help design EHR-based studies/extract EHR data, etc.).
 - Dedicate AHSC / COM-T resources to support this enterprise, which has the potential to expand the quality and quantity of clinical research (e.g., for mentoring of Scholarly Projects), as well as the cadre of research-active clinical

- faculty, by facilitating and streamlining the conduct of retrospective/prospective observational clinical studies.
 - Acquire Patient Reported Outcomes software to enhance EHR-based research capabilities.
- Clinical Research
 - COM Clinical [Research](#) Incubation Center- research staff to assist faculty with design, regulatory approval, obtaining funding, conducting research. Staff would include biostatisticians, EMR research support staff (as above), regulatory coordinators, grant writers, and staff with expertise in project management.
 - Streamline the process of expedited regulatory review for retrospective clinical studies and observational prospective studies.
 - Acquire and provide ongoing support for an EHR-integrated easy to use Patient Reported Outcomes research platform. This software must be fully integrated with the EHR so that clinicians can easily create studies, select patients from clinic based on diagnosis, send out questionnaires, evaluate results, aggregate, and analyze data. An example of such a platform is Patient IQ. (<https://www.patientiq.io/>)
 - The development of these resources would enable more of the clinical faculty to get involved in clinical outcomes research which would create mentors and projects to satisfy the need of the scholarly projects.
- Develop/maintain searchable online platform of COM-T faculty research interests:
 - Unlike current K-Map, faculty research *interests* as well as research *activities* (e.g., via biosketches, CVs, lab, or faculty webpages, etc.) would both be captured to highlight evolving research interests and promote interdisciplinary research collaboration within COM-T.
 - This information would be disseminated via the searchable database, as well as associated content. The online platform can include database access, information, newsletters, and interactive online forums with extension of phone app for prompt and easy communications among PIs. Biomed Communications can establish this @ a cost of approximately \$2000 for start-up and \$350 annually to maintain, depending on the number of users. However, dedicated support is also required to maintain/update content.
- COM-T Research website: build out. Most UAHS research-related websites focus on research regulations. A COM-T research website could be built to include more general information as a go-to resource related to the *conduct* of research, including links to recorded “how to” panel discussions/workshops (as described above), link to [K-MAP](#), posting of current COM-T-specific research opportunities and other COM-T research-relevant content (i.e., posting COM-T review policies/guidelines to enhance transparency).
- New 2023 NIH data sharing pollicy: develop/provide resources to assist faculty with actual data transfer and storage, addressing issues unique to basic vs clinical datasets.
- Build upon outcomes/discussions from faculty “how to” workshops (see below) to inform, streamline and create efficiencies in conduct of a variety of types of clinical research (e.g., infrastructure for creation of study documents, assistance with regulatory approvals, accessing biostatistical support, curated information from UA faculty on research use of clinical laboratories), as well as EHR-based research. This will be beneficial for clinical faculty with limited time and experience.
- Address needs identified in faculty surveys and “how to” workshops to support any additional “hardscape” infrastructure, particularly for clinical research (e.g., create wet lab “cores” to support clinical researchers, a model CON has used, or leverage existing cores [e.g., in UACC] by providing additional COM-T support).

2. Programmatic reforms

- Scholarly projects (SP): solicit faculty input to assist with establishing infrastructure and resources required to sustain meaningful projects for 400+ students concurrently (i.e., COM-T faculty programmatic oversight committees are sufficient to monitor < 100 students/projects (e.g., MSRP, GIDPs); a different approach and associated resources are needed for >400). Leverage SP program to foster a culture of creative discovery, including the build out of necessary clinical research infrastructure (e.g., for conduct EHR-based research, biostatistical analyses, as described above), to benefit both students and faculty, most particularly clinical faculty with limited time and resources available for research.
- T32 Training grants: actively support the development / submission of programmatic T32 training grants, which will also enhance / support collaborative research programs
- Clinical research regulatory burdens: solicit input from users on how best to streamline and identify bottle necks, including intradepartmental review of unfunded clinical proposals (e.g., see FCM for a working model).
- MD/PhD training program: leverage better to connect basic/clinical faculty and help build out robust translational projects
- Faculty research awards: increase number of awards, as well as the diversity of topics, to better recognize research contributions, help support career progression
 - In addition to current subjective/competitive awards (e.g., one basic and one clinical research award for Assistant or Associate Professors), create additional award categories (e.g., separate awards for Assistant vs Associate Professors), some of which could also be based on objective milestone achievements (i.e., first NIH award, specific level of extramural funding or number of extramural grants as PI). Applicants “within reach” of specific COM-T awards or research grants should receive feedback and be specifically encouraged to reapply.
 - Review of these awards could be done by the Honors and Awards committee or other appropriate committees or could be administered departmentally based on standardized COM-T criteria.
- COM-T faculty meetings: revise structure to enhance faculty participation/leverage the meetings as a resource to increase collaborative engagement
 - Structural: faculty-run (must be dean-designated unless bylaws changed), topical, with townhall forums/break-out sessions
 - Content: minimize announcements, maximize dialog to facilitate engagement. Solicit COM-T faculty committees for suggested topics. Include invited speakers to stimulate discussion (e.g., [Dashun Wang, PhD, Professor of Management and Operations, Northwestern U](#), who has mined large datasets to reveal how scientific careers unfold, collaborations contribute to discovery and scientific progress emerges).

3. Improve transparency and communication and/or establish policies regarding:

- IDC distribution: the process for distributing and using IDCs generated by COM-T faculty should be transparent and well known.
- COM-T salary support for non-clinical translational researchers in clinical departments: Extramural funding alone is insufficient to build and sustain individual researchers or successful translational programs, particularly in units lacking a critical mass of clinician scientists.
- UA-mandated salary increases include extramurally funded COM-T faculty in HR discussions/planning and improve timely communication to minimize adverse impact on extramural research projects
- COM-T research-related communications with faculty: support DEI goals by ensuring direct communication with all faculty (i.e., *not* via department/division heads) for key

- research opportunities/information (e.g., from COM-T Research office and/or DRC). Consider instituting a UAHS-research calendar.
- K-MAP: many COM-T faculty are not aware of this resource. Can [post link](#) on COM-T Research website or proposed online faculty-to-faculty platform if either of these are created.
 - Consider “public comment” periods for COM-T faculty with posting of new proposed research policies or programs prior to adoption, as well as sharing of specific information used to develop policies (i.e., [reports submitted to and received from LCME etc.](#)).
 - COM-T reviews of grants and awards: best practices for review, consistent with those recommended by DRC and used in other UA units, should be adopted, posted, and followed, including specific policies related to conflicts of interest.

Conclusion

This list is not exhaustive but provides a general roadmap for a series of incremental, but actionable items that research-active MD and/or PhD DRC members, as representatives the COM-T faculty, believe could help strengthen COM-T research if adopted and supported by COM-T leadership. Adoption of these elements could enhance overall faculty engagement, creating cultural shifts, supported by specific infrastructure and programs, with the goal of sustaining a rising tide of research that would lift all boats.

Members of the Dean's Research Council (June 14, 2022):

Kurt Denninghoff, MD **	(Emergency Medicine)	2 nd term ends 6/22
Tolga Turker, MD	(Orthopedic surgery)	2 nd term ends 6/22
Srikar Adhikari, MD, MS	(Emergency Medicine)	1 st term ends 6/22
Janet Funk, MD, MS *	(Medicine)	1 st term ends 6/23
Maria Altbach, PhD	(Medical Imaging)	2 nd term ends 6/23
Rui Chang, PhD	(Neurology)	1 st term ends 6/23
Erika Eggers, PhD	(Physiology)	1 st term ends 6/24
Patrick Ronaldson, PhD	(Pharmacology)	2 nd term ends 6/24
Marlys Witte, MD	(Surgery)	2 nd term ends 6/24
Katalin Gothard, MD, PhD	(Physiology)	1 st term ends 6/25
Alicia Allen, PhD, MPH	(Family and Community Medicine)	1 st term ends 6/26
Edita Navratilova, PhD	(Pharmacology)	1 st term ends 6/26
Zong-Ming Li, MD	(Orthopedic Surgery)	1 st term ends 6/26
Margaret Briehl, PhD	(Pathology)	ad hoc thru 6/22
Daniel Latt, MD	(Orthopedic Surgery, Biomed Engineering)	ad hoc thru 6/22

*chair and **co-chair

DRC membership composition:

Terminal degree: 50% MD/ 50% PhD

Primary department: 66% clinical / 33% basic