Introduction to Translational Science 

Responsible Conduct of Patient-Oriented Clinical Research

Patient-Oriented Clinical Research Methods • Patient-Oriented Clinical Research Biostatistics • Integrating Molecular Biology with Patient-Oriented Clinical Research • Data Management, Quality Control, and Regulatory Issues • Grantsmanship and Peer Review • Health Services Research • Instrument Validation and Development Objects and Guntil Epsemiology • Cross Cultural Adaptation of Research Instruments • Introduction to Translational Patient-Oriented Clinical Research • Patient-Oriented Clinical Research rogram, Policies, and Guidelines Peer Review Health d Peer Review 🔹 Health Oriented Clinical Resear Services Research 

Instrument Validation and Development 

Genetics and Genetic Epidemiology 

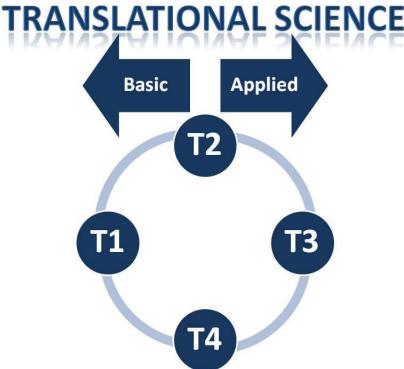
Cross Cultural Adaptation of Research Instruments • Introduction to Translational Science • Responsible Conduct of Patient-Oriented Clinical Research • Patient-Oriented Clinical Research Methods • Patient-Oriented Clinical Research Biostatistics • Integrating Molecular Biology with Patient-Oriented Clinical Research • Data Management, Quality Control, and Regulatory Issues • Grantsmanship and Peer Review • Health Services Research • Instrument Validation and Development • Genetics and Genetic Epidemiology • Cross Cultural ertificate in Translational Science (C Adaptation Biology with Patient-Oriented Clinical Research • Data Management, Quality Control, and Regulatory Issues • Grantsmanship and Peer Review 

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Introduction to Translational Science • Responsible Conduct of Patient-Oriented Clinical Research • Patient-Oriented Clinical

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CTS program policies and guidelines are in compliance with those established by the UT System (http://www.utsystem.edu/) Board of Regents (http://www.utsystem.edu/BOR/rules.htm), the UT Health Science Center at San Antonio (http://www.uthscsa.edu/hop2000/), and the Graduate School of Biomedical Sciences (http://gsbs.uthscsa.edu/). The Catalog (http://students.uthscsa.edu/registrar/2013/04/catalog-and-course-descriptions/) of the UT Health Science Center at San Antonio provides general information and regulations that relate to students. In the event of discrepancies between MSCI program policies/guidelines and those established by UT governing components, those described by the governing components will prevail.

Please note that the policies of the CTS Program are regularly reviewed and updated; therefore, this printed copy may not be the most current. Current policies are provided in the CTS Handbook that is electronically available at the CTS website: <u>http://iims.uthscsa.edu/ed\_CTS\_overvie</u>w.html



7703 Floyd Curl Drive

UT Health Science Center at San Antonio

San Antonio, Texas 78229-3900 210-567-4631 (voice) 210-567-4301 (fax) E-mail: MSCI@uthscsa.edu

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# Certificate in Translational Science (CTS)

Program, Policies, and Guidelines

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#### THE UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT SAN ANTONIO GRADUATE SCHOOL OF BIOMEDICAL SCIENCES

### Certificate in Translational Science (CTS)

## AIMS/OBJECTIVES

The goal of this program is to provide graduate students, postdoctoral fellows, faculty, and other health care professionals with formal education in the essential components of translational science. That is, the advancement of scientific discoveries made in basic biomedical research towards clinical applications and improvements in human health. This training program will prepare professionals to integrate within interdisciplinary investigative teams for the conduct of clinical and translational research in culturally diverse settings.

#### The specific aims of the CTS Program are to:

- Support the intellectual environment at the UT Health Science Center at San Antonio for clinical and translational science.
- Provide fundamental curricular activities in translational science to UT Health Science Center - San Antonio students, postdoctoral trainees, clinical residents and fellows, and faculty from the Schools of Medicine, Nursing, Dentistry, Allied Health, and Graduate School of Biomedical Sciences (GSBS) as well as from local organizations that are partnered with UT Health Science Center - San Antonio.

The aims of the CTS Program will be achieved *via* participation and successful completion of required didactic coursework.

# **Certificate Program Governance**

Oversight for the routine operations and implementation of the Certificate in Translational Science (CTS) Program will be provided by the Master of Science in Clinical Investigation (MSCI) Program and the corresponding MSCI Committee on Graduate Studies (COGS).

### **Admission Requirements**

All students should have a sufficient educational background in the biological or biomedical sciences prior to admission to the program. It is expected that most students will have a health professional degree (*e.g.*, MD, DDS/DMD, DVM, or BS in nursing and/or allied health) or a BS/BA, MS, or PhD degree with emphasis in a health-related discipline. The following general requirements will be applied:

- A medical, dental, veterinarian, doctoral, masters and/or baccalaureate **degree** from an accredited institution in the United States or an U.S. equivalent degree and training at a foreign institution as determined by one of the <u>foreign credentialing evaluation agencies</u>' translation of the foreign transcripts. The CTS Program will accept foreign transcript translations from the Educational Credential Evaluators, Inc. (ECE) or the World Education Services, Inc. (WES) only.
- A grade point average (GPA) no lower than B (3.00 in a 4.00 system) in the last 60 hours of coursework for a BS/BA degree or a GPA of at least 3.0 for applicants with a MS degree.
- A satisfactory score for the combined verbal and quantitative portions of the Graduate Record Examination (**GRE**). A minimum of 300 (1,000 for scores prior to August 2011) for the combined scores on the verbal and quantitative portions of the GRE is desirable. Scores on GRE tests taken more than five years prior to the date of application will not be accepted. *Applicants who have completed a graduate degree in a health-related discipline (MD, DDS, RN, DVM, MS, or PhD) will be exempted from the requirement to complete the GRE.*
- A minimum score of 550 on the Test of English as a Foreign Language (**TOEFL**) or 6.5 on the academic version of the International English Language Testing System (**IELTS**) for applicants from countries where English is not the native language. Scores on TOEFL and IELTS (academic version) tests taken more than two years prior to the date of matriculation will not be accepted.

## **Applicant Documentation Requirements**

- 1. **Completed and submitted GSBS online application.** The GSBS online application can be found on the GSBS homepage at <u>http://gsbs.uthscsa.edu/</u>.
- 2. Official transcripts from ALL colleges and universities attended.
- 3. **Course by Course Translation of foreign** transcripts to include GPA and U.S. degree equivalency by an approved <u>foreign credentialing evaluation agency</u>.

- 4. **Official GRE scores** taken within the past five (5) years.
- 5. **Official TOEFL or IELTS (academic version) scores** taken within the past two (2) years for foreign national applicants.
- 6. **Three (3) Letters of Recommendation** attesting to the applicant's readiness for graduate level studies in cancer prevention science. These letters should be uploaded to the Recommendation Form by the individual recommenders who will receive an email from the online application system (EMBARK) with a link to the Recommendation Form.
  - 1. Students from a GSBS graduate program who have a Supervising Professor are required to submit one (1) of the three (3) letters from their Supervising Professor with a statement indicating the availability and approval of release time for the completion of the CTS educational activities.
  - 2. Residents or fellows in an approved UT Health Science Center at San Antonio residency or fellowship program are required to submit one (1) of the three (3) letters from the departmental chair with a statement indicating the availability and approval of release time for the completion of the CTS educational activities.
  - **3.** UT Health Science Center at San Antonio faculty and staff are required to submit one of the three (3) letters from their authorized supervisor with a statement indicating the availability and approval of release time for the completion of the CTS educational activities.
- 7. A **Statement of Purpose (a.k.a. Personal Statement)** (1-2 pages) that includes a brief description of the applicant's background, long term research and/or career goals, and an indication of the basis for application into the CTS Program including how this program fits into the applicant's career objectives. The Statement of Purpose should be submitted with the on-line application to the GSBS.
- 8. A **current curriculum vitae.** This should be submitted with the on-line application to the GSBS.
- 9. A copy of current visa for foreign national applicants.
- 10. Copy of U.S. Medical License/Certificate for licensed health care professionals.

# Official test scores, transcripts, and foreign transcript translations, mentioned above, should be sent to:

Registrar's Office-Graduate Admissions MSC 7702 The UT Health Science Center at San Antonio 7703 Floyd Curl Drive San Antonio, Texas 78229-3900

> gsprospect@uthscsa.edu Phone: 210-567-2667

Applicants should utilize the <u>checklist</u> of required documentation for admission that is provided in the Appendix of this Handbook.

All of the **required** information previously discussed **must** be submitted in order for an applicant to be considered by the MSCI Student Admissions Committee. Requests for an exemption to any of these general admission requirements should be addressed to the CTS Program Director and sent directly to the CTS Academic Coordinator at the address below.

Academic Coordinator CTS Program Room 5.577U IIMS/Research Education Office - MC 7757 UT Health Science Center at San Antonio 7703 Floyd Curl Drive San Antonio, Texas 78229-3900

### **Application Process**

*Application*. An <u>online application</u> for admission into the CTS Program must be processed through the UT Health Science Center - San Antonio Graduate School of Biomedical Sciences (GSBS). This application is available at: <u>http://apply.embark.com/grad/UTHSCSA/</u>.

As described in the online application for admission into the GSBS, official transcripts from **ALL** colleges and universities attended by the applicant are required; these must be submitted in sealed institutional envelopes. In addition, all transcripts from foreign institutions must be translated and submitted by one of the above mentioned approved foreign credentialing evaluation agencies. Official GRE and TOEFL test scores must also be submitted

**Deadlines**. The CTS Program has an open application policy and will accept applications for admission at any time. However, *GSBS deadlines* (for submission of application and required documentation) for matriculation in a specific academic semester are listed below.

- Fall Semester March 1
- Spring Semester October 1

Applicants will have the responsibility for the timely submission of application materials in order to meet the <u>deadlines established by the GSBS</u> for registration and course enrollment.

*Application Review*. Operational processes used by the CTS program are provided by the Master of Science in Clinical Investigation (MSCI) Committee on Graduate Studies (COGS). Thus, after receipt of the online application together with all of the required admission materials outlined above, the MSCI Admissions Committee will review and provide a recommendation to the MSCI COGS.

Each application will be individually reviewed to consider: the applicant's undergraduate and graduate course work and degree(s), scores on the GRE and TOEFL or IELTS (academic version), if applicable tests, research experience, and all other required documentation submitted with the online application. The admission decision is based on the personal statement as well as record of academic achievement, research experience, coursework, and letters of recommendation.

After sequential review by the MSCI COGS and the GSBS, applicants will be formally notified of the outcome by the Graduate Dean of the UT Health Science Center at San Antonio. The MSCI COGS recommends admission to the most highly qualified applicants regardless of ethnicity, gender, age, sexual orientation, nation of origin, or disability.

After acceptance, students may complete the requirements for certificate completion while enrolled as either a full-time or part-time student.

Graduate students who are enrolled in the Master of Science in Clinical Investigation (MSCI) program are ineligible to concurrently enroll in the CTS Program. However, coursework accomplished towards the Certificate in Translational Science may be applied to the MSCI.

### **Tuition and Fees**

*Tuition and Fees*. Rates for in-state and out-of-state graduate student <u>tuition</u> and <u>fees</u> are established by the institution and subject to adjustment. A summary of current rates is provided in the Appendix.

### **Student Pathways in the CTS Program**

*Regular Students*. After acceptance as a candidate working towards the certificate, students may undertake course requirements for graduation while enrolled as either a full-time or part-time student.

*Full-Time students*. Full-time students are enrolled in at least nine (9) semester credit hours (SCH) per semester during the Fall and Spring semesters.

*Part-time Students*. Part-time students are enrolled for less than nine (9) credit hours per semester during the Fall and Spring semesters.

UT Health Science Center at San Antonio Faculty and Staff as Students in the CTS Program. UT Health Science Center at San Antonio faculty and staff may apply for admission in the CTS Program. However, faculty and staff may only enroll in coursework as a *part-time student*. The amount of course work that can be taken by faculty or staff in a given semester is subject to the 'quantity of work' rules outlined in the current UT Health Science Center at San Antonio <u>Catalog</u> and <u>Handbook of</u> <u>Operating Procedures</u> (HOP).

*Non-Degree Seeking Students in the GSBS*. Non-degree seeking students may enroll in courses and receive GSBS course credit *without* matriculation (admission) into a graduate program. For those not already matriculated into other GSBS graduate programs, an <u>on-line application</u> must be submitted to the GSBS for approval by the Dean [this would also include students who are matriculated in other

UT Health Science Center at San Antonio Schools (*e.g.*, Medical, Dental or Nursing Schools or School of Health Professions) as well as faculty, staff, or others]. The appropriate Course Director must approve the enrollment of any non-degree seeking student in their course and sign course cards (provided by the GSBS Dean's office).

Course credit earned as a non-degree seeking student can be applied towards a Certificate in Translational Science following formal application and acceptance into the CTS Program. Note that enrollment as a non-degree seeking student in the GSBS is limited to four (4) semesters. Additional details about non-degree seeking students are available at:

UT Health Science Center at San Antonio GSBS website

### **Certificate Requirements**

*Coursework.* Completion of the CTS Program requires the satisfactory completion of required and elective coursework. Twelve (12) semester credit hours (SCH) of didactic coursework are required to obtain the CTS. All course-related rules established by the <u>MSCI program</u> will be endorsed and followed by the CTS Program.

*Required Courses*. Students in the CTS program must successfully complete the following didactic courses.

MEDI 5070 (2 SCH)	Responsible Conduct of Patient-Oriented Clinical Research	
MEDI 5071 (2 SCH)	Patient-Oriented Clinical Research Methods -I	
MEDI 5072 (2 SCH)	Patient-Oriented Clinical Research Biostatistics - I	
MEDI 6001 (1 SCH)	Introduction to Translational Science	
MEDI 6101 (1 SCH)	Topics in Translational Science	

*Elective Courses*. Diverse elective courses are available to CTS graduate students. These courses may be taken in any semester when offered and include:

MEDI 5073 (1 SCH)	Integrating Molecular Biology with Patient-Oriented Clinical Research	
MEDI 5074 (2 SCH)	Data Management, Quality Control, and Regulatory Issues	
MEDI 5075 (2 SCH)	Scientific Communication	
MEDI 5076 (1 SCH)	Introduction to Informatics	
MEDI 5077 (1-3 SCH)	Practicum in Translation Science	

MEDI 5078 (1 SCH)	Introduction to Intellectual Property, Tech Transfer, & Communication	
MEDI 5079 (.5 SCH)	Practicum in Intellectual Property, Tech Transfer & Communication	
MEDI 5080 (1 SCH)	Practicum in Integrating Molecular Biology with Patient-Oriented Clinical Research	
MEDI 6060 (2 SCH)	Patient-Oriented Clinical Research Methods -2	
MEDI 6061 (2 SCH)	Patient-Oriented Clinical Research Biostatistics - 2	
MEDI 6064 (1 SCH)	Grantsmanship and Peer Review	
MEDI 6065 (2 SCH)	Health Services Research	
MEDI 6066 (1 SCH)	Instrument Development and Validation	
MEDI 6067 (1 SCH)	Genetics and Genetic Epidemiology	
MEDI 6068 (1 SCH)	Cross Cultural Adaptation of Research Instruments	
MEDI 6100 (1 SCH)	Practicum in IACUC Procedures	
MEDI 6102 (1 SCH)	Practicum in IRB Procedures	
MEDI 6103 (1 SCH)	Selected Topics in Advanced Research Ethics	
MEDI 6105 (1 SCH)	Topics in Cancer Prevention	
MEDI 6106 (.5 – 1 SCH)	Practicum in Cancer Prevention Science	

*Timeline for Coursework*. A typical schedule for a full-time CTS student is provided in the Appendix of this Handbook.

Coursework towards a Certificate in Translational Science must be accomplished within four (4) or less years prior to request for certification. Exceptions to this requirement will be considered by the MSCI COGS on a case-by-case basis. A written request for exemption must be submitted to the CTS Program Director through the CTS Academic Coordinator and should include a brief description of the reason(s) for the request.

*Grade Requirement*. As detailed by the MSCI program, student performance in MSCI courses is assessed on a satisfactory (S) / unsatisfactory (U) basis. Any student who receives less than a Satisfactory (S) assessment in any CTS required course will be required to re-take the course and receive a passing grade during the next academic year. In the event of a second failure in the same course, the MSCI COGS will provide a recommendation to the GSBS Dean as to whether or not the student should be dismissed from the CTS Program.

*Exemption of a Requied Course.* Exemptions to the requirement for completion of a *required* course will be considered by the MSCI COGS on a case-by-case basis. A written request for exemption

must be submitted to the CTS Program Director through the CTS Academic Coordinator and should include a brief description of the reason(s) for the request. In the event that prior coursework conducted at another institution is the basis for the request, details regarding the content of the substitute course(s) must be provided. In the event that prior coursework conducted at another institution is the basis for the request conducted at another institution is the basis for the request conducted at another institution is the basis for the request conducted at another institution is the basis for the request the following supporting documents are required in addition to the written request.

- Official copy of the transcript from the institution where the course was taken, the transcript should include the number of credit hours earned and indicate successful completion of the course.
- Copy of the course description from the catalogue in effect when the course was taken.

MSCI COGS approval of a request for exemption to a required course does not automatically result in approval of course credit hours towards the CTS degree. Transfer of coursework for credit is described below.

**Transfer of Coursework for Credit.** If a student has successfully completed graduate level coursework that is duplicative of *required* CTS courses, it is possible that transfer of course credit may be allowed. A written request for consideration of transfer of course credit in substitution for a given CTS course must be submitted to the CTS Program Director through the CTS Academic Coordinator. This request should include a comprehensive description of the prior course detailing when and where completed, course contact hours, and details of course content and objectives. The request should include an official transcript that indicates successful course completion and the grade issued. If the transfer of credit request is approved by the MSCI COGS, the program will prepare a request for transfer of course credit (on the GSBS form) and submit to the GSBS for consideration/approval by the Dean. In no case will the allowable semester credit hour(s) of transfer for a given course exceed that of the corresponding MSCI course. No more than 3 semester credit hours may be transferred towards the completion of a Certificate in Translational Science.

### **Class Attendance and Makeup Policy**

*Attendance*. Attendance at scheduled classes and examinations is crucial to meeting course and program objectives. Therefore, regular attendance in class is expected of each student. Attendance is defined as being present within 15 minutes after the scheduled beginning of the class and until 15 minutes before the scheduled ending of the class.

Excused absences may be granted by the Course Director in cases such as formal presentations at scientific meetings, illness, or personal emergency. Excused absences are considered on an individual basis and require electronic communication with the Course Director to request an excused absence. The email request to the Course Director for consideration of an excused absence must provide details regarding the circumstances and specific dates. It is expected that students will provide *advanced notice* of absence for scheduled events.

Repeated unexcused absences make it impossible to achieve course objectives. Thus, if a student has excessive unexcused absences in a given course, they will automatically receive a grade of *unsatisfactory* unless *makeup* has been approved by the Course Director (see below). Allowable unexcused absences will be determined by the credit hours of the course as follows:

<b>Course (Semester Credit Hours</b>	Allowable Unexcused Absences
3	3
2	2
1	1

1

*Absence Makeup*. Makeup of absences (both excused and unexcused) is allowed at the discretion of the Course Director.

### **Other CTS Program Requirements**



*Laptop Computers*. A required class (MEDI 5072) requires a laptop computer that is operational in a wireless mode. Software required for this course includes:

- Microsoft Office Suite (can be purchased at the UT Health Science Center at San Antonio bookstore with a student ID)
- Stata/IC (latest version) http://www.stata.com/order/new/edu/gradplans/gp-campus.html

Laptops with an Apple Mac-based operating system must be able to also perform as a PC-based operating system.

All wireless laptops must be authenticated before accessing the UT Health Science Center at San Antonio computer network. To accomplish this authentication, the laptop and an UT Health Science Center at San Antonio ID card must be taken to UT Health Science Center at San Antonio Telecommunications & Networking (Room 421L) *prior* to the start of classes; this authentication process usually requires approximately 5 minutes.

### **Ethics/Professionalism Policy**

The CTS Program expects all students to exhibit the highest standards of conduct, honesty, and professionalism. Academic misconduct includes activities that undermine the academic integrity of the institution. The University may discipline a student for academic misconduct as outlined in the UT Health Science Center at San Antonio <u>Catalog</u> and <u>Handbook of Operating Procedures</u>. Academic misconduct may involve human, hard-copy, or electronic resources. Policies of academic misconduct apply to all course-, department-, school-, and university-related activities including conferences and off-campus performances. All cases of academic misconduct must be reported to the Dean of the

Graduate School of Biomedical Sciences (GSBS) and the seriousness of the violation may be taken into account in assessing a penalty. Academic misconduct includes, but is not limited to, the following:

- *Cheating*. Any attempt to use or provide unauthorized assistance, materials, information, or access in any form and in any academic exercise or environment is considered cheating and is expressly forbidden.
- *Fabrication*. A student must not falsify or invent any information or data including, but not limited to, records or reports, data analyses, and citation to the sources of information.
- *Plagiarism*. Plagiarism is defined as presenting someone else's work as one's own. Ideas or materials taken from another source for either written or oral use must be fully acknowledged. The adoption or reproduction of ideas, opinions, theories, formulas, graphics, or research results of another person without acknowledgment is expressly forbidden. Credit must be given to the originality of others whenever:
  - Quoting the works of another
  - Using another person's ideas, opinions, or theories
  - o Paraphrasing the words, ideas, opinions, results, or theories of others
  - o Borrowing facts, statistics, or illustrative material
  - o Offering materials assembled or collected by others

*Facilitating Academic Dishonesty*. A student must not intentionally or knowingly help another student commit an act of academic misconduct, nor allow another student to use his/her work or resources to commit an act of misconduct.

## **Completion of the CTS Program**

**Recommendation for Granting the Certificate in Translational Science**. A graduate student must be accepted into in the CTS program to be eligible to receive a certificate. Upon satisfactory completion of coursework, the MSCI COGS will review and approve the recommendation for awarding the certificate; the Chairman of the MSCI COGS will then submit a recommendation form to the *Graduate Faculty Council* (GFC) of the Graduate School of Biomedical Sciences (GSBS).

*Time-to-Certificate*. The CTS Program can be completed within 1 year of study. Some students may require 2 to 3 years to complete certificate requirements. If a CTS student has not completed the necessary coursework within 3 years, the MSCI COGS Chair will form a special committee to review progress with the student. The special committee's responsibility will be to either recommend a course of action to expedite completion or recommend termination of the enrollment of the student in the program.

# **Helpful Online Connections**

CTS Program	http://iims.uthscsa.edu/ed_CTS_overview.html
<u>CTS Forms</u> <u>MSCI Course Schedules</u>	http://iims.uthscsa.edu/ed_CTS_forms.html http://iims.uthscsa.edu/sites/iims/files/Education/ MSCI/Course-Schedule.pdf
<u>Graduate School of Biomedical</u> <u>Sciences (GSBS)</u>	http://gsbs.uthscsa.edu/
<b>GSBS Application for Admission</b>	https://apply.embark.com/Grad/UTHSCSA/24/
<b>GSBS Deadlines for Admission</b>	http://students.uthscsa.edu/registrar/2013/04/grad uate-school-calendar/
UTHSCSA Catalog	http://students.uthscsa.edu/registrar/2013/04/catal og-and-course-descriptions/
UTHSCSA Handbook of Operating Procedures (HOP)	http://www.uthscsa.edu/hop2000/
Institute for the Integration of Medicine and Science	http://iims.uthscsa.edu/

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# 2013-2015 Master of Science in Clinical Investigation (MSCI ) Committee on Graduate Studies (COGS)

Michael Lichtenstein, MD, MSc MSCI COGS Chair

Carrie Jo Braden, RN, PhD Nursing

David M. Bush, MD, PhD Pediatrics/Cardiology

Andrew P. Cap, MD, PhD, FACP San Antonio Military Medical Center (SAMMC) Institute of Surgical Research/Clinical Investigation Fellowship Program

David P. Cappelli, DMD, PhD, MPH Comprehensive Dentistry

Barbara A. Christy, PhD Molecular Medicine

Robert A. Clark, MD Medicine

John E. Cornell, PhD Epidemiology & Biostatistics

Jonathan Gelfond, MD, PhD Epidemiology & Biostatistics

Goutam Ghosh-Choudhury, PhD Medicine/Renal Diseases

Helen P. Hazuda, PhD Medicine/Clinical Epidemiology

Angela Khan Institutional Review Board

Donna M. Lehman, PhD Medicine/Clinical Epidemiology

Michael J. Lichtenstein, MD, MSc Medicine/Geriatrics IIMS/Office of Research Education & Mentoring Philip T. LoVerde, PhD Biochemistry/Pathology

Linda M. McManus, PhD Biochemistry/Pathology

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Lillian L. Sanchez, MSN, RN School of Nursing Dean's Office

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Gail Tomlinson, MD, PhD Pediatrics/Hematology-Oncology

**Chen-Pin Wang, PhD** Epidemiology & Biostatistics

Michael J. Wargovich, PhD Molecular Medicine Medicine/CTRC

# **Typical schedule for a One Year CTS Student**

#### Year 1 – Fall Semester

MEDI 5070 (2 SCH) – Responsible Conduct of Patient Oriented Clinical Research MEDI 5071 (2 SCH) – Patient Oriented Clinical Research Methods -1 MEDI 5072 (2 SCH) – Patient Oriented Clinical Research Biostatistics -1 MEDI 6001 (1 SCH) – Introduction to Translational Science

#### Year 1 – Spring Semester

MEDI 6101 (1 SCH) - Topics in Translational Science MEDI electives (4 SCH) - Elective coursework

#### CTS Elective Courses (may be taken in any semester when offered)

MEDI 5073 (1 SCH) - Integrating Molecular Biology with Patient Oriented Clinical Research MEDI 5074 (2 SCH) – Data Management, Quality Control, and Regulatory Issues MEDI 5075 (2 SCH) – Scientific Communications MEDI 5076 (1 SCH) – Introduction to Informatics MEDI 5077 (1 SCH) – Practicum in Translational Science MEDI 5078 (1 SCH) – Intro to Intellectual Property, Tech Transfer, & Communication MEDI 5079 (.5 SCH) – Practicum in Intellectual Property, Tech Transfer, & Communication MEDI5080 (1 SCH) – Practicum in Integrat Molec Biology with Pt-Orient Clinical Research MEDI 6060 (2 SCH) - Patient Oriented Clinical Research Methods -2 MEDI 6061 (2 SCH) - Patient Oriented Clinical Research Biostatistics -2 MEDI 6064 (1 SCH) - Grantsmanship and Peer Review MEDI 6065 (2 SCH) - Health Services Research MEDI 6066 (1 SCH) - Instrument Development and Validation MEDI 6067 (1 SCH) – Genetics and Genetic Epidemiology MEDI 6068 (1 SCH) – Cross Cultural Adaptation of Research Instruments MEDI 6100 (1 SCH) - Practicum in IACUC Procedures MEDI 6102 (1 SCH) – Practicum in IRB Procedures MEDI 6103 (1 SCH) – Selected Topics in Advanced Research Ethics MEDI 6105 (1 SCH) - Topics in Cancer Prevention MEDI 6106 (.5 - 1 SCH) – Practicum in Cancer Prevention

Twelve (12) semester credit hours (SCH) are required to obtain the Certificate in Translational Science (CTS). Students **must** be admitted to the CTS program to be eligible for certification. **Graduate School of Biomedical Science** 

#### Tuition and Fee Breakdown (2013-2015) This is only an estimate / Tuition and Fees are subject to change without notice

Resident:	
Tuition (per SCH)	50.00
Designated Tuition (per SCH)	46.00
Designated Tuition (Deregulated)* (per SCH)	57.00
Library Fee (per semester)	150.00
Student Service Fee (per SCH)	90.00
Medical Service Fee (per semester)	72.63
Fitness Center Fee (per semester)	240.00
* Students admitted prior to FY 2010-2011 \$42.00 per SCH	
* Students admitted prior to FY 2011-2012 \$54.00 per SCH	
Non- Resident:	
Tuition (per SCH)	404.00
Designated Tuition (per SCH)	46.00
Designated Tuition (Deregulated)* (per SCH)	116.00
Library Fee (per semester)	150.00
Student Service Fee (per SCH)	90.00
Medical Service Fee (per semester)	72.63
Fitness Center Fee (per semester)	240.00
* Students admitted prior to FY 2010-2011 \$101.00 per SCH	
* Students admitted prior to FY 2011-2012 \$113.00 per SCH	

#### Estimates below are based on enrollment for 2 semesters\* to acquire 12 SCH

Texas Resident:		
Tuition		600.00
Designated Tuition		552.00
Designated Tuition (Deregulated)		684.00
Student Service Fee		180.00
Fitness Center Fee		480.00
Medical Service Fee		145.26
Library Fee		300.00
	Total	2,941.26
Non-Texas Resident:		
Tuition		4,848.00
Designated Tuition		552.00
Designated Tuition (Deregulated)		1,392.00
Student Service Fee		180.00
Fitness Center Fee		480.00
Medical Service Fee		145.26
Library Fee		300.00
	Total	7,897.26

\* Increasing the number of semesters to complete the program will increase the total cost

#### Additional Costs Not Included: Purchase of laptop, software, books, and supplies

The University of Texas Health Science Center at San Antonio IIMS/Clinical and Translational Research Education Office Certificate in Translational Science (CTS) Program		
Certification Request Form		
Student Name:		
Department/Division:		
Regular UTHSCSA graduate student:       yes       no         If yes, graduate program/track:		
Date admitted to CTS program:		
Current Date:		

#### **Courses completed towards a Certificate in Translational Science**

Course ID Number	Course Title	Course Semester Credit Hours (SCH)	Yr/semester completed

## CTS Contact Information

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Lora Tumlinson Academic Coordinator Main Campus, Room 5.577U 210-567-4631 (voice) 210-567-4301 (fax) CTS Program IIMS/Research Education Office – MC 7757 UT Health Science Center - San Antonio 7703 Floyd Curl Drive San Antonio, Texas 78229-3900 <u>tumlinson@uthscsa.edu</u>

This educational program is supported in part by a grant provided by the National Center for Research Resources of the National Institutes of Health (U54 RR024387) Introduction to Translational Science 

Responsible Conduct of Patient-Oriented Clinical Research

Patient-Oriented Clinical Research Methods • Patient-Oriented Clinical Research Biostatistics • Integrating Molecular Biology with Patient-Oriented Clinical Research 

Data Management, Quality Control, and Regulatory Issues

Grantsmanship and Peer Review

Health Services Research 

 Instrument Validation and Development
 Genetics and Genetic Epidemiology
 Cross Cultural Adaptation of Research Instruments • Introduction to Translational Science • Responsible Conduct of Patient-Oriented Clinical Research • Patient-Oriented Clinical Research Methods • Patient-Oriented Clinical Research Biostatistics • Integrating Molecular Biology with Patient-Oriented Clinical Research • Data Management, Quality Control, and Regulatory Issues • Grantsmanship and Peer Review • Health Services Research 

Instrument Validation and Development 

Genetics and Genetic Epidemiology 

Cross Cultural Adaptation of Research Instruments • Introduction to Translational Science • Responsible Conduct of Patient-Oriented Clinical Research • Patient-Oriented Clinical Research Methods • Patient-Oriented Clinical Research Biostatistics • Integrating Molecular Biology with Patient-Oriented Clinical Research • Data Management, Quality Control, and Regulatory Issues • Grantsmanship and Peer Review • Health Services Research • Instrument Validation and Development • Genetics and Genetic Epidemiology • Cross Cultural Adaptation of Research Instruments • Introduction to Translational Science • Responsible Conduct of Patient-Oriented Clinical Research 
• Patient-Oriented Clinical Research Methods 
• Patient-Oriented Clinical Research Biostatistics 
• Integrating Molecular Biology with Patient-Oriented Clinical Research • Data Management, Quality Control, and Regulatory Issues • Grantsmanship and Peer Review 

 Health Services Research
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Data Management, Quality Control, and Regulatory Issues Grantsmanship and Peer Review • Health Services Research • Instrument Validation and Development • Genetics and Genetic Epidemiology • Cross Cultural Adaptation of Research Instruments • Introduction to Translational Science • Responsible Conduct of Patient-Oriented Clinical Research • Patient-Oriented Clinical Research Methods • Patient-Oriented Clinical Research Biostatistics • Integrating Molecular Biology with Patient-Oriented Clinical Research • Data Management, Quality Control, and Regulatory Issues 

Grantsmanship and Peer Review

Health Services Research

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Patient-Oriented Clinical Research Methods

Patient-Oriented Clinical Research Biostatistics • Integrating Molecular Biology with Patient-Oriented Clinical Research • Data Management, Quality Control, and Regulatory Issues • Grantsmanship and Peer Review • Health Services Research • Instrument Validation and Development • Genetics and Genetic Epidemiology • Cross Cultural Adaptation of Research Instruments • Introduction to Translational Science • Responsible Conduct of Patient-Oriented Clinical Research 

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Date Inship and Peer Review 

Health WE MAKE LIVES BETTER Services Research 

Instrument • Cross Cultural Adaptation of Research Instruments • Responsi UT HEALTH SCIENCE CENTER ated Clinical Research Methods • Patient-Oriented Clinical Research • Data rvices Research 
Instrument Management, Quality Control, and F SAN ANTONIO

Validation and Development • Genetics and Genetic Epidemiology • Cross Cultural Adaptation of Research Instruments • Introduction to Translational Science • Responsible Conduct of Patient-Oriented Clinical Research • Patient-Oriented Clinical Research Methods • Patient-Oriented Clinical Research Biostatistics • Integrating Molecular Biology with Patient-Oriented Clinical