Mission

The mission of the School of Communication Sciences and Disorders (CSD) is twofold: (a) to educate and train students for professional careers in audiology and speech-language pathology, and (b) to prepare graduates to assume professional and research leadership roles that contribute to the advancement of the professions and the disciplines. Consistent with the mission of the Faculty of Health Sciences (FHS), "Through transformative research and education, we will unleash innovative ideas and opportunities that enable living in health throughout the lifespan," the School's mission is carried out in ways designed to ensure that the professions of audiology and speech-language pathology and fields of hearing, speech, voice, language, and swallowing sciences continue to shape the broader knowledge bases in healthcare and rehabilitation in general.

Vision

The vision of faculty and staff in the School of CSD is to be the leading Canadian university professional program in audiology and speech-language pathology, and the leading research centre for hearing, speech, and language sciences by integrating research, teaching and clinical practice. This is achieved, in part, by the actions of faculty and staff affiliated with the National Centre for Audiology (NCA), which is a national centre of excellence and leadership in audiological education, research and professional service. The vision of the School also is enhanced through the research and clinical programs of audiology and speech-language pathology faculty that are conducted within the School, in the H.A. Leeper Clinic, and in public, voluntary and private sectors.

Intended School profile:

> **Western's School of CSD:**
>
> 1. **We pursue a thriving research agenda that involves innovative research, collaborative projects, and interdisciplinary approaches**
> 2. **We promote professional excellence and stewardship in communication sciences and disorders**
> 3. **In diverse, interactive learning environments, we integrate classroom learning, research, clinical practice, and community service**
> 4. **We graduate scholars who are well-prepared for collaborative practice in multiple settings and sectors**
> 5. **We develop scholars with the depth, breadth, creativity, and flexibility to contribute and respond to significant advances in knowledge and practice**

The following three goals were identified and agreed upon by CSD faculty and staff to form the basis of the School's Strategic Plan and actions for the next five years (i.e., 2019-2024). The goals were identified during three meetings that occurred during the School's Strategic Planning Process over the 2017-2018 academic year.

GOAL #1: ENHANCING RESEARCH AND KNOWLEDGE TRANSLATION

With emphasis on health and development of hearing, speech, voice, language, cognitive-communication, and swallowing, faculty in the School of CSD, through their innovative research collaborations both within and external to the School, aim to maximize communicative potential, meaningful participation, and quality of life at the level of the individual and society. To achieve these goals and to advance our capacity and reputation as leaders in research, the faculty members of the School of CSD are committed to:

1.   Advancing technology and innovations: Developing and refining the advanced concepts, technology, and techniques integral to understanding communication and the assessment and treatment of communication disorders;

2.   Translating knowledge-to-action: Addressing research-practice gaps by employing strategic and novel research approaches and methodologies; and,

3.   Enacting interdisciplinary research and academic endeavours: Fostering the interdisciplinary collaborations that are fundamental to advancing research and academic training in hearing, speech, voice, language, cognitive-communication, and swallowing sciences and the professions of audiology and speech-language pathology.

The following model delineates these three overarching research themes and the specific research objectives arising from those themes that the School of CSD aims to achieve:
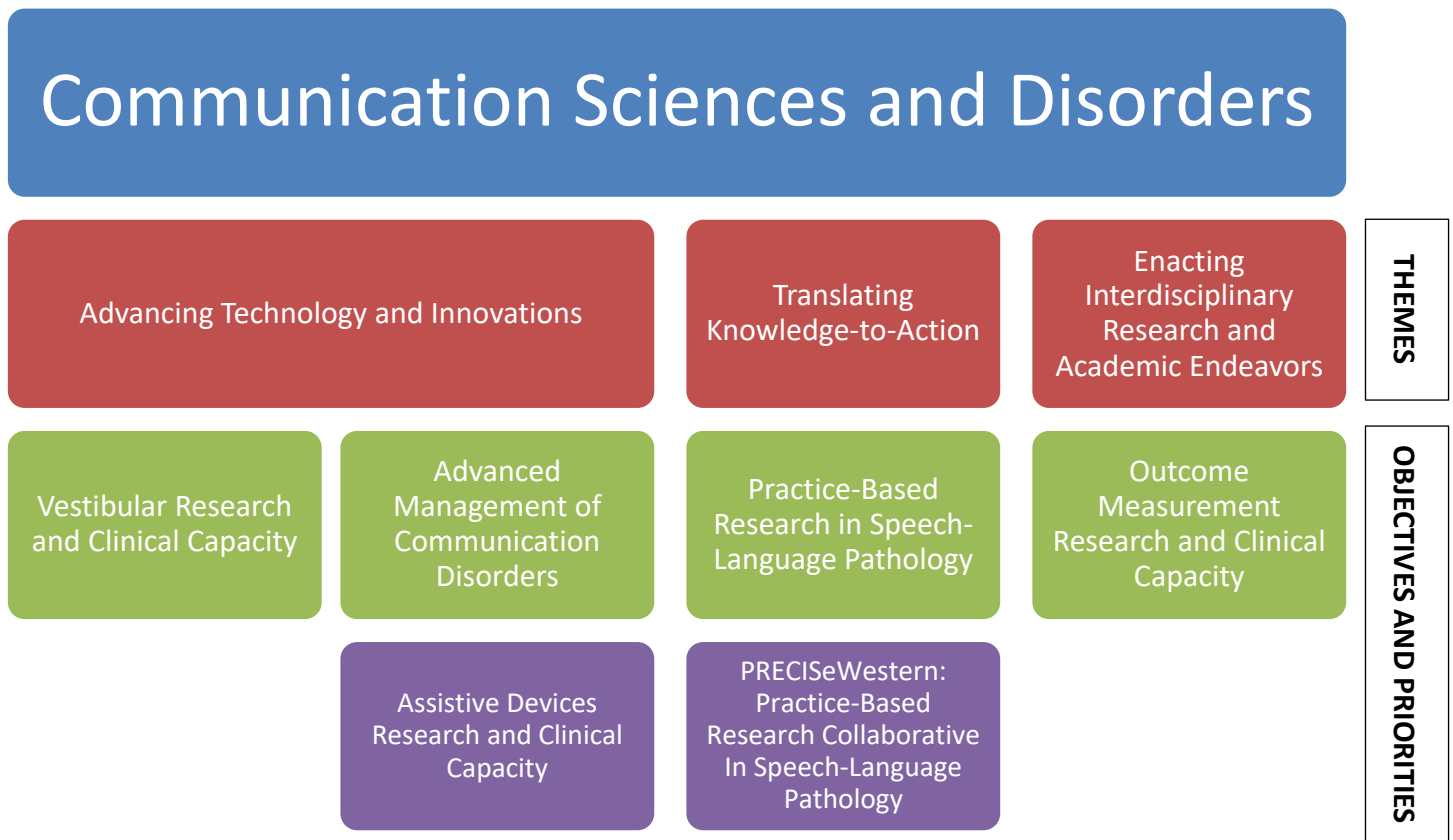
Develop Vestibular Research and Clinical Capacity

The need for establishing vestibular research and clinical capacity within the School of CSD is evidenced by three related observations, at minimum: (a) vertigo and dizziness are common symptoms affecting 30% of the general population before the age of 65 years; (b) balance disorders are pervasive among older adults, with falls representing the leading cause of death and traumatic brain injury in this age group; and, (c) irrespective of age, balance disorders can have a negative psychological impact, including depression and anxiety. Diagnostic capabilities have improved dramatically in the last decade and opened further research and development opportunities. Research, evaluation, and management of equilibrium-disorders are most successful when conducted within a multidisciplinary approach, with hearing science and audiology serving as key disciplines. Accordingly, the following actions items have been selected to _foster vestibular and equilibrium research, education and professional development, and evidence-based care within the School of CSD and the H.A. Leeper Clinic_.

Action items:

(a) Complete an environmental scan of local vestibular research and clinical activity
   a. Identify potential collaborators in other FHS Schools and Western Faculties and Institutes (e.g., Physical Therapy, Otolaryngology – Head and Neck Surgery, Brain and Mind Institute, Gait and Balance Lab – Parkwood Institute)
   b. Identify local clinics providing vestibular services and delineate the types of services being offered
   c. Involve FHS Associate Dean of Research and Staff for items a. and b., and to identify funding mechanisms
(b) Initiate multidisciplinary research pertaining to vestibular assessment and intervention
(c) Develop links and resources that would feed into MCISc program in audiology
   a. Develop a local program of vestibular assessment that provides a fertile ground for interdisciplinary collaboration and student practica
   b. Foster students' preparation for vestibular area of audiology competency exam through coursework and applied learning opportunities

Expand Advanced Management of Communication Disorders Research and Clinical Capacity

Current advances in hearing, speech, language, voice, cognitive-communication, and swallowing assessment and intervention concepts, techniques, and technology are areas of growth in audiology and speech-language pathology. Knowledge and capacity in these areas are influenced by the advent of new measurement technologies as well as increased use of advanced measures (e.g., extended bandwidth audiometry, middle ear analysis, surface EMG, machine learning and artificial intelligence). They also are influenced by improved understanding of the structural components and physiological mechanisms supporting communication based on studies of animal models, developments in genetics, biomedical implant technologies, and population-level studies of development and aging; all of these require integration and application in the clinical practice of audiology and speech-language pathology. The School of CSD aims to maintain and expand expertise and thus, viable programs of research and education in the areas of advanced assessment and intervention of communication disorders. The School also will continue to align its strategic research and academic efforts with those of FHS, especially with respect to the specific FHS initiative of seeking a CRC in Dementia and Integrated Knowledge Translation (iKT); CSD faculty are well-positioned to link closely with and contribute to the focus of this FHS CRC initiative, which aims to advance

the development and dissemination of non-pharmacological/behavioural approaches to dementia management. An area of advanced management of communication disorders that has been prioritized by the School of CSD is the _Development of Assistive Device (i.e., Communication Enhancement and Assistive Listening Devices [ALD]) Research and Clinical Capacity_. This area has been prioritized for development given its benefit to audiology and speech-language pathology research capacity, to clinical education and training, to H.A. Leeper Clinic services, and to the FHS strategic emphasis on health and aging research initiatives (e.g., CRC in Dementia and iKT).

Action items:

(a) Complete an environmental scan of communication enhancement (e.g., speech and voice amplifiers) and ALD research and clinical activity
   a. Identify potential collaborators in other FHS Schools and Western Faculties and Institutes (e.g., OT, Engineering, Brain and Mind Institute)
   b. Identify local clinics and hospitals (e.g., Thames Valley Children's Centre; St. Joseph's Health Care) providing assistive device services and delineate the types of services being offered
(b) Develop research projects/programs linked to existing and potential group services in the H.A. Leeper Clinic (e.g., aural rehabilitation, aphasia, electrolarynx use, parent support groups, frontotemporal lobe dementia variants – primary progressive aphasias)
   a. Foster research collaborations between academic and clinical CSD faculty members

Practice-Based Research in Speech-Language Pathology

The pursuit of evidence-informed practice in the field of speech-language pathology (SLP) should not result solely in an expectation that clinicians evaluate in singular isolation the research literature, apply valid and reliable assessments and efficacious treatments appropriately, and collect local effectiveness data. Rather, the vitality of the SLP profession relies on high quality research that holds direct applicability to the clinical context. Thus, it is essential in SLP that we maintain professional relevance and high levels of respect within scientific, clinical, and lay communities by fostering a culture of evidence-informed practice supported by seamless, collaborative relationships between our academic and clinical 'worlds'. Practice-based research (PBR) encompasses systematic and organized investigations of ideas with direct application to SLP practice in the context of intentionally established partnerships among researchers, clinicians, and those whom we serve. That is, the defining element of PBR is the partnership among academic researchers, clinicians, and clients. PBR aims to: (a) Capture practice: investigate the current state of science relative to the application of knowledge (propositional, theoretical, or scientific – knowing what) and disciplinary knowledge (knowing how) in practice; (b) Change practice: investigate the application of different knowledge (craft or propositional) from what has previously been applied in practice; and, (c) Create practice: investigate new and novel intervention techniques or theories in context of practice.

The School of CSD aims to maintain and expand its PBR expertise by identifying as a priority the establishment of _PRECISeWestern: Practice-Based Research Collaborative In Speech-Language Pathology_. This Research Group will bring together faculty members committed to engaging in PBR with clinical partners in SLP and related fields, with the goal of establishing the School of CSD as experts in PBR in SLP on national and international stages. This research priority also aligns well with the specific FHS initiative of seeking a CRC in Dementia and iKT, given that PBR represents an approach to iKT.

Action items:

      (a) Leverage the breadth of PBR projects undertaken by CSD faculty to pursue external funding
- a. Identify faculty in CSD currently completing or committed to completing future PBR projects
- b. Develop a list of current and planned PBR projects

      (b) Develop a common language and repertoire of research methodologies that would enhance interdisciplinary PBR collaborations within the School of CSD and the Faculty of Health Sciences.

      (c) Develop and initiate a plan for collaboratively seeking external funding for PBR projects

Expand Capacity in Outcome Measurement Research: Impact of Communication Disorders on Participation in Society

In audiology and speech-language pathology, outcome measurement is a key component of intervention research and clinical practice. There are several examples of conceptual frameworks (e.g., World Health Organization's International Classification of Functioning, Disability and Health; ICF) that inform the theoretical underpinning of outcome measurement research by offering explanations of how health care conditions, including communication disorders, may not only have broad effects on the individual, but also additionally arise from societal and environmental phenomena. Several other frameworks include the construct of communicative participation, which relates to taking part in life situations where knowledge, information, ideas, or feelings are exchanged. It may take the form of speaking, listening, reading, writing, or nonverbal means of communication, and may occur in multiple life situations or domains (e.g., personal care, household management, leisure, learning, employment, community life).

Communicative participation is increasingly being recognized as an important outcome domain in both audiology and speech-language pathology research. As a consequence, there is a growing need to _identify psychometrically-sound and efficient outcome measures_ that: (a) are suitable for individuals with communication disorders (e.g., can be completed by individuals with listening and/or reading limitations); (b) from the perspectives of individuals with communication disorders and their communication partners, focus on the impact of a communication disorder on participation in society and capture communicative functioning in daily activities and multiple environments; and/or (c) quantify and/or qualify contextual (environmental, personal) factors that mediate or moderate communicative participation.

Action items:

    (a) Complete an environmental scan of local outcome measurement research and clinical activity
- a. Identify potential collaborators within CSD, other FHS Schools, and Western Faculties and Institutes (e.g., Nursing, Faculty of Education)
- b. Create a working research group who focus on developing new and validating existing outcome measures of communicative participation

    (b) Foster the implementation of communicative participation measures in the H.A. Leeper Clinic, affliated clinics, and CSD and affliated research laboratories
- a. Review current use of communicative participation outcome measures in the H.A. Leeper Clinic, including if and how they are currently databased

b. Increase local and affiliated faculty awareness of communicative participation outcome measures that are available, and facilitate implementation of these measures in local and affiliated clinics and research laboratories

GOAL #2: LEADING IN LEARNING

The School of CSD aims to maintain its commitment to ongoing critical appraisal of current curriculum and pedagogy to encourage exploration and advance development of innovative approaches to educating and mentoring.

Curriculum Appraisal

Action items:

(a) Continue to evaluate curriculum on at least an annual basis or more frequently as needed to assure compliance with accreditation standards
   a. Preparation for next accreditation starting in 2019 (report due in 2020)
(b) Compile and annually update an inventory of course content and sequencing to serve as a reference for CSD faculty, staff, and limited duties instructors
(c) Continue to identify and address inefficiencies in course content within and across MClSc speech-language pathology (SLP) and MClSc audiology curriculum
   a. Review series of professional practice courses in both SLP and audiology
      i. Continue to foster SLP-audiology collaborative learning opportunities
   b. Examine courses outside of CSD that may offer similar and/or complementary content to CSD courses (e.g., other FHS Schools' courses in anatomy or research methods/evidence-based research)

Foster Innovative Pedagogy

Action items:

(a) Hold regular School meetings (e.g., one per semester) to focus on pedagogy. Meeting activities will include:
   a. generating and maintaining a list of pedagogy topics (e.g., assignment and examination approaches for large graduate-level classes; online course development)
   b. sharing and discussing innovative instructional/learning techniques (e.g., flipped classroom; use of "articulate" to create teaching materials; in-class, online quiz technology)
   c. identifying courses in which such innovative techniques could be utilized
(b) Identify classrooms within and external to Elborn that support innovative instructional approaches
(c) Identify and address privacy/protection issues related to on-line courses and teaching materials
   a. Determine appropriate permissions to obtain for pre-recorded speakers and client samples

(d) Seek and include input from Western University experts in pedagogy (e.g., Centre for Teaching and Learning, Instructional Technology Resource Centre, FHS Instructional Designer) to address items (a) through (c).

Curriculum and Program Certificate Initiatives

Action items:

(a) Generate a list of potential certifications, workshops, webinars, or other platforms of instruction (e.g., assistive devices, traumatic brain injury, dementia, auditory-verbal therapy) that the School of CSD could offer and would generate income
   a. Consult with community partners to identify their continuing education needs
   b. Complete an environmental scan of the support services offered by Western University that could support such activities; determine costing (e.g., conference services).
(b) Investigate sustainability of developing and offering on-line pre-requisite courses (e.g., acoustics; anatomy; phonetics) for our MCISc in SLP and audiology programs
(c) Consult and collaborate with provincial and national professional organizations (e.g., CAA, OSLA, SAC) when prioritizing target areas and mounting certificates, workshops, or courses described in items (a) and (b).
(d) Increase awareness of and access to CSD's on-line, Speech-Language Pathology for Audiology course (i.e., CSD 9515y)
   a. International students as well as internationally-trained professionals seeking certification in Canada
(e) Develop Grand Rounds series in which MCISc students would present cases and clinical issues
   a. Open to community partners who could attend in person or via electronic teaching platforms (e.g., Zoom)

GOAL #3: ENRICHING CSD ENGAGEMENT

The School of CSD aims to develop and increase mutual beneficial engagement with our clinical, research, education, industry, and other stakeholder communities.

Magnify Dissemination of CSD Research Achievements

Action item:

(a) Encourage and foster dissemination of research achievements and products via:
   a. CSD School and faculty web pages
   b. social media (e.g., Facebook and/or Twitter posting of recent publication) and web sites
   c. Western News releases/articles
   d. local media (e.g., local news or radio programs)
   e. talks at local community groups
   f. industry-sponsored speaker series

Expand Clinical Opportunities for MCISc Programs

Action items:

(a) Identify and implement new Western- and community-based services
   a. Possible services include:
      i. hearing protection programs for campus police and/or music students
      ii. school screening services
      iii. vocal hygiene education and training for local educators, music students, personal trainers, etc.
      iv. voice therapy for transgender/gender diverse community
      v. individual and group treatment programs for persons with frontotemporal lobe dementia subgroup variants of primary progressive aphasia
   b. Such services would not only generate clinical hours for students, but also increase visibility of CSD and SLP and audiology professions within the community
(b) Diversify marketing and client recruitment strategies for H.A. Leeper Clinic services
   a. Particular focus on practice areas which prove challenging for students to accrue clinical hours (e.g., fluency, vestibular)

Increase Engagement with School of CSD Alumni

Action items:

(a) 50th Anniversary of Western CSD in 2020
   a. Create committee to lead anniversary event(s) planning
      i. Invite alumni who are working in academic/research settings to give talks about their research
      ii. Invite panel of previous and current School Directors (e.g., discussion of how looking back may move the School forward)
   b. Identify development/fund-raising goal(s) linked to 50th Anniversary
(b) Survey alumni regarding engagement suggestions
   a. Examine how to foster a "give back to the school" mindset
(c) Regularly feature a CSD alumnus on the School's web pages