



Strategic Plan

THEMATIC FOCI

- Enhancing the student experience
- Amplifying the research productivity
- Increasing the community involvement

Guiding Principles

MISSION

To advance oral health through outstanding education, research, and community service.

OPERATIONAL GOAL

To develop an exceptional Faculty of Dentistry at UBC worthy of enthusiastic support by our customers and partners.

ESSENTIAL CUSTOMERS and PARTNERS

- Students
- Faculty and Staff
- UBC Community
- Alumni
- Patients, Public, Community
- Funders, Donors
- Related Health Organizations
- Teaching Agencies
- Research Agencies
- Related Professional Organizations
- Related Industry

ULTIMATE RESULTS SOUGHT

- Well-educated graduates who are ably prepared to meet the oral health and science needs of their communities.
- Innovative research that has a positive impact on oral health science, education, and patient care.
- Enthusiastic customers and partners who want to join and support our efforts.

CORE IDEAS for the successful achievement of ultimate results sought

- Provide exceptional undergraduate education.
- Offer high-quality graduate and post-graduate programs.
- Develop research capacity through collaboration, concentration, and career development.
- Offer relevant continuing dental education.
- Conduct timely and effective communication with all of our customer groups.
- Cultivate a diversified funding base to support the Faculty.
- Define and monitor results.
- Support individual enterprise while fostering collaboration.



CORE VALUES that support our core ideas

- Exemplary professionalism (teaching, clinical care, research, administration.)
- Mindful service to our customers and partners.
- Shared responsibility for the faculty's welfare and financial health.
- Thoughtful, timely communication.
- High degree of collaboration, partnership, and dialogue.
- Results-oriented efforts (appropriate planning, methodology, and evaluation).

Strategic Goal 1

Faculty and Staff Model the Core Values of the Faculty of Dentistry as per our Guiding Principles.

Rationale

The knowledge, skills and values of an oral health professional are critical elements to be included in all programs of the Faculty of Dentistry. The UBC Faculty of Dentistry has adopted a set of Guiding Principles to serve as a template for our teaching, research and service. These Guiding Principles represent our Core Values and creating an academic environment built on this foundation will help our students to model these values as they begin their careers. The Core Values must be supported and reinforced by the curriculum, our patient care, the research programs and the patterns of behaviour by all students, staff and faculty. Creating this professional environment will lead our students to spend time and learn with faculty and staff who model the Core Values. Therefore it will be critical that all faculty members and staff reinforce the Core Values in all their activities. This will result in a more comfortable working environment for everyone in the Faculty of Dentistry. To maintain this environment will require continued reinforcement of the Guiding Principles, personal accountability for respecting Core Values and recognition of individuals exhibiting the highest standards of professionalism. This culture will result in the Faculty of Dentistry becoming more productive and better able to achieve the Strategic Objectives.

Enabling Activities

- Incorporate the Core Values into hiring, mentoring, reappointment and promotions processes
- Develop a Code of Ethics for the Faculty
- Create a culture of Mentorship for faculty development, staff development and student instruction
- Effective Communications
- Recruitment strategies to attract staff and faculty committed to the Core Values
- Annual Retreats for Students, Staff and Faculty to reflect on the environment of the Faculty of Dentistry
- Orientation process for Students, Staff and Faculty to reinforce the Core Values at the beginning
- Development of mechanisms to recognize individuals with outstanding commitment to the Guiding Principles

Resource Requirements

- Faculty Development
- Faculty, Staff, Student Retreats – Annually
- HR Initiatives, Hiring, Orientation, Training
- Communications – Strategy, Personnel, Materials
- Incentives for Staff and Faculty to improve the “Service” culture of the Faculty of Dentistry
- Engagement of appropriate experts to assist in the process
- Evaluation strategy to monitor Outcomes

Outcomes Assessment (Metrics and Qualities)

- Staff and Faculty turnover
- Complaints by either students, staff or faculty about another individual/group in the UBC Faculty of Dentistry
- Student, Staff, Faculty and Patient Satisfaction Surveys
- Clinical achievement in all areas
- Community Service
- Alumni support
- Perception in the community
- Recognition and awards

Benchmarks

- 2009: Communication and recruitment package for staff and faculty
- 2009: Faculty and staff development program initiated
- 2011: on-going: Staff and faculty live and breathe the Core Values
- 2011: Students no longer report being "afraid" to go to class/clinic
- 2012: Majority of new graduates state an interest in coming back to teach in the Faculty of Dentistry
- 2012: Graduating student surveys demonstrate support for the Faculty of Dentistry environment
- 2012: A well established Culture of Inclusion and support at the Faculty of Dentistry

Strategic Goal 2

Accept and graduate students who share Faculty of Dentistry Core Values as per our Guiding Principles.

Rationale

The Guiding Principles have been developed not just to reflect the culture of the Faculty of Dentistry but also of the oral health profession. All the students learning in our programs through their accumulated experiences in the Faculty of Dentistry should come to understand the link between these Core Values and exemplary professional practice. The students should recognize the importance of these principles by observing their modeling by other students, the staff and the faculty. Modeling these values will occur in the approaches to student Assessment and Evaluation that reflect achievement with respect to the Core Values. This will require that students learn and practice in environments that reflect, reinforce, and enhance the Core Values.

Ultimately the student qualities will reflect Faculty of Dentistry goals and values aiming for the highest levels of professionalism and ethics. Faculty, staff and classmates will prefer to spend time and learn in environments filled with individuals living by the Guiding Principles. At the completion of their education each student will have achieved competency of a defined body of knowledge, a repertoire of clinical and community skills and a set professional values. Admitting students inclined to these Core Values and reinforcing the values throughout their education will help them to enter their careers exhibiting the highest levels of professionalism.

Enabling Activities

- Review our Admissions processes and policies
- Explore Admissions selection criteria for unique qualities required for UBC curricula (e.g. Problem Based Learning—PBL)
- Recruitment strategies to attract students committed to Core Values Pursue CDA Admissions Task Force study on the value of other measurable attributes
- Develop communications package for recruitment of best applicants, “Why should one come to UBC?”
- Multiple mini-interviews
- Faculty Development
- Student-Faculty Retreat
- Development of mentoring approaches for students, staff and faculty
- Recruiting visits to secondary schools, colleges and universities that provide applicants to our programs
- Annual reinforcement of the Core Values
- Review of adherence to Core Values
- Enhance the collegiality of all individuals in the Faculty of Dentistry
- Improved recognition of positive student behaviours
- Alumni surveys of attitudes and outcomes from Faculty experience
- Development of new approaches to student assessment that focus on elements of the Guiding Principles
- Continual reinforcement of the Guiding Principles throughout the Faculty

Resource

Requirements

- Student Recruitment visits, contacts, communication
- Admissions Open House
- New approaches to student assessment and admission
- First Nations student recruitment
- Student Orientation: initial and on-going
- Establish culture welcoming applicants, new students, new alumni to the Faculty of Dentistry and profession

- Activities to reinforce the Core Values throughout the Faculty of Dentistry
- Evaluation of Outcomes to monitor success
- Incentives for students to improve the “service” culture of the Faculty of Dentistry

Outcomes Assessment (Metrics and Qualities)

- Fewer professionalism problems
- Faculty complaints (students, staff, patients, faculty) while at UBC
- College complaints (patients, peers) in professional career
- Retention rate
- Student satisfaction
- Patient satisfaction
- Clinic achievement
- Community service
- Quality of incoming students
- Recognitions of students for exemplary practice in Core Values
- Students returning to become teachers in the Faculty
- Alumni participation rates in Faculty/University activities
- Percentage of alumni participating in Development activities
- Percentage of alumni participating in Faculty Continuing Dental Education
- Commitment to Life-Long Learning

Benchmarks

- 2008: New information for Class of 2012 admissions, dental, dental hygiene and graduate (Pilot PBL experience and assess student performance for later comparisons)
- 2009: Focus applicant interviews on Core Values and include PBL assessment in admissions; begin assessment of “successful” senior students to identify qualities in common that could predict success in dental school
- 2013: Students and graduates live and breathe the Core Values

Strategic Goal 3

All undergraduate, graduate and post-graduate programs meet the highest standards of excellence and reflect community needs and expectations.

Rationale

The University of British Columbia is internationally recognized as an outstanding university and it is expected that all programs in all faculties endeavour to be recognized at the highest levels of eminence.

It is expected that this is a shared goal for everyone in the Faculty of Dentistry and consequently provides a standard for all Faculty activities. The student experience is best enhanced by an excellent education, which must be applicable to every program in the Faculty of Dentistry. Thus we need to demonstrate excellent educational outcomes in order to help establish our eminence to both the university and the external community. The ultimate goal would be that every program at UBC Faculty of Dentistry becomes recognized as the benchmark to which other programs internationally are compared. Excellent programs engender higher levels of support from and for communities and become self-perpetuating by attracting outstanding students and faculty members. Graduates of exemplary programs become recognized throughout their professional communities, which further enhances the reputation of UBC Faculty of Dentistry.

Continual program evaluation is required to generate the information on the relative quality of the programs and those measures required to continue to improve the programs. Continuous Quality Improvement is the hallmark of outstanding educational programs and the ideal approach to achieve that goal. Ultimately the quality of the educational programs will be a significant aspect of the overall assessment of the eminence of the Faculty of Dentistry.

Enabling Activities

- Communication on outcomes of clinical education
- On-going Academic Review/Outcomes Assessment
- Learning about the "best practices" at peer institutions
- Establishing Benchmark programs for comparison with UBC programs
- Develop approaches to improve programs to achieve the highest standards of excellence
- More electronic based materials/modules for learner/instructor.
- Utilize technology to share learning materials between partner dental schools.
- Recruitment of the highest quality faculty to teach/develop the educational programs
- Recruitment of the highest quality students
- Development of on-going programs to review teaching and learning
- Develop a process of Peer Review of Teaching for both formative and summative applications
- Determine the community needs and expectations for the Faculty of Dentistry
- Review the graduation competencies for all programs
- Faculty development programs to enhance understanding of principles and practice of teaching and learning

Resource

Requirements

- Quality Assurance Program for curricula
- Evaluations of UBC students/graduates by external individuals
- Curricula Review/Updating
- IT enhancements for improving learning outcomes
- Faculty development for teaching and learning
- Investment in on-going faculty calibration

- Recruitment of faculty who meet the standards
- On-going review of teaching and learning
- Clinic/laboratory facilities for student learning

Outcomes Assessment (Metrics and Qualities)

- Number and quality of applicants
- Admissions acceptances
- External surveys of programs
- Survey of community knowledge of the Faculty of Dentistry
- Success of graduates entering graduate/specialty programs
- Alumni surveys of new graduates from all programs
- Study-club feedback
- Measure overall clinical experience
- Alumni entering academic positions
- Recognition by academic peers
- Recognition in Media
- Academic review
- Review of curricula to ensure they are reflective of community needs
- Accreditation outcomes
- Benchmark institutions
- Quality of faculty
- Survey of International students visiting Faculty of Dentistry on impression of UBC
- Teaching evaluations
- Students electing to practice in underserved areas of B.C.
- Faculty success in promotion and tenure decisions

DMD: NDEB scores, US Board scores, Service utilization, Faculty of Dentistry clinics

DHDP: NDHCB scores, Service utilization, Faculty of Dentistry clinics

GRAD: Grad Perio AAP, research output of grad students. e.g. publications, presentations, awards

POST-GRAD: GPR rationale for participation, Service utilization (e.g. First Nations, DTESC, VGH)

Benchmarks

Review annually/ongoing, provide surveys and formal reviews biannually

- 2012: NDEB scores >1 standard deviation above national average, NDHCB scores in highest ranking, Fellowship examination outcomes for RCDC at highest levels
- 2012: We have improved credibility with our communities
- 2014: Increased level of scholarship (e.g. poster presentations, publications) by students
- 2016: Higher proportion of UBC graduates as faculty

Strategic Goal 4

Encourage greater connection between UBC and the external community, including the University, organized dentistry and dental hygiene, practicing dentists and dental hygienists, and the greater communities of Vancouver, British Columbia, Canada and Internationally.

Rationale

The University of British Columbia has a mission dedicated to the service of the people of British Columbia. A large component of the budget of the Faculty of Dentistry comes from the Provincial government in recognition of the service provided to the people of the Province. Thus the people of the Province are a critical stakeholder in the future of the Faculty of Dentistry. Establishing clear and recognized links to the community are essential to insuring the long-term support by the provincial stakeholders.

The Faculty of Dentistry represents a critical link in improving the oral health of people in British Columbia and ultimately will be viewed by every dental patient as an important focus in the improvement of their lives, either directly through patient care or indirectly by improving the quality of the professions in the province. The greater the value the community places on our existence the safer the Faculty's financial existence, which will be critical in times of economic uncertainty. The Faculty of Dentistry has direct links to the community and the professions through our alumni and students and these links represent an element that can be enhanced to demonstrate our value to the population and the professional communities.

The Part-time faculty are another key stakeholder group with linkages between the Faculty of Dentistry and the provincial community at large. Students functioning effectively in the community support both our Mission and Core Values. An effective faculty practice can provide a resource to the community and enhance the Faculty's reputation as a centre of not only educational and research excellence, but also of clinical excellence. Demonstrating that the Faculty of Dentistry has added value to all our stakeholders is a critical achievement for our long term success.

Enabling Activities

- Recruit actively and selectively for part-time faculty from community
- Support student volunteers and their efforts to raise awareness in the community (i.e. health fairs, dental month etc.)
- Develop faculty intramural practice that supports the local community and enhances the Faculty's reputation
- Develop broad external communications strategy to position the faculty as a resource in the community
- Explore opportunities in the community that have high positive service, education and research impact
- Develop a network of internal (students, staff, faculty, alumina emeriti) and external community stakeholders
- Build a development and communication infrastructure
- Develop further links with First Nation's programming or like type populations for program outreach
- Increase alumni programming and events
- Publicize student/Faculty of Dentistry contributions to community
- Establish links to provincial agencies and ministries
- Establish links to national government agencies and ministries
- Maintain linkages to the professions through the College of Dental Surgeons, the British Columbia Dental Association, the College of Dental Hygienists of BC and the BC Dental Hygienists Association, the specialty society of BC, the CDA and CDRAF

Resource
Requirements

- Establish community sites for Service Learning
- Establish linkages to additional mentors in the community
- Enhance communications to multiple stakeholder groups
- Increase involvement of dental and dental hygiene professions with the Faculty of Dentistry
- Recruit community advocates for the Faculty of Dentistry
- Continue contacts with stakeholder groups in the Province

Outcomes
Assessment
(Metrics and
Qualities)

- A waiting list of dentists and dental hygienists who want to teach at the Faculty of Dentistry
- The ability to selectively hire and retain only the most effective part-time faculty
- Improved student satisfaction with teaching in the DMD and DHDP programs
- Recognition of student community service
- Press reports of Faculty of Dentistry in community
- Inventory of community programs and evaluation of their cost/ benefit success
- Survey student experience in community and their beliefs and attitudes to providing education and care in the community
- Evaluate patient satisfaction
- Presentations by faculty members to different groups of stakeholders outside UBC
- Frequency of faculty presentations nationally and internationally

Benchmarks

Ongoing.

- 2008 – 09: begin pre-clinic PT faculty development sessions, with emphasis on clinical teaching skills and Core Values
- 2010: Move Specialty Clinic to OHC and support faculty in marketing their practices
- 2008: Increase recognition of student community volunteers and UBC Student Leadership Awards within the Faculty and community (e.g. Impressions)
- 2009 – 10: Work with BCDA and BCDHA to recognize excellent part-time faculty; highlight faculty practice services in Impressions
- 2012: The external community views UBC Dentistry as an integral part of oral health service and policy, and a valuable resource for British Columbians and Canadians

Strategic Goal 5

Develop multi-site clinical learning environments to optimize learning opportunities, better serve disadvantaged population groups and recruit the best students from all sectors of B.C.

Rationale

Service learning and cultural competency are rapidly emerging and developing concepts in dental and dental hygiene education. Important outcomes from these experiences include student recognition of their responsibility to provide care to people in need, social awareness and professional responsibility. Currently the students have some experiences outside West Point Grey however these are limited with the outcome that students view these as required rotations rather than as opportunities to recognize and develop their professional roles. UBC, through the Faculty of Dentistry, must become more of a “university for the Province”, not just for Vancouver and the Lower Mainland.

For current and future learners, the Faculty of Dentistry must move beyond the somewhat artificial environs of Point Grey. Increased off-campus sites will increase the diversity of patients treated by the dental, dental hygiene and graduate students and enhance their understanding of the range of oral health needs presented by individuals with limited access to care. Dental schools which have embarked on developing clinical learning settings in multiple, off-site locations have shown that improving access to care in this manner results in eventual recruitment into dentistry and dental hygiene from those regions and these recruits usually return to their communities to practice.

UBC has made a strong commitment to help address the health care needs of aboriginal people and to attract aboriginal students to careers in the health professions. Increasing the UBC Faculty of Dentistry presence in First Nations communities will help to address under-served, under-accessed communities and present opportunities for careers in oral health care. The UBC mission specifically addresses meeting the needs of BC, Canada and the world and greater clinical experiences off-campus will directly address this mission.

Enabling Activities

- Work closely with the Associate Dean, Strategic and External to join existing programs and to develop new partnerships, particularly with First Nations
- Develop pilot projects, using new models, that include post-graduate students (residents), similar to AEGD programs.
- Set goals related to the location and number of off-site locations
- Evaluate current and potential community programs that can fit with the priorities of the Faculty in community service, education and research
- Evaluate the cost/benefit, and business/financial models for each off-site clinical location
- Establish research-related goals that include non-clinical faculty and establish natural partnerships within the dental industry
- Establish professional relationships in off-site locations and recruit part-time faculty at the local level
- Continue to support and enhance the off-site elements of Professionalism and Community Service (PACS)
- Continue to support and enhance the off-site Pediatric Dentistry program located at Douglas College
- Develop needs assessment protocols and instruments that will identify prime locations for these initiatives
- Change clinical skill acquisition sequence to make PACS more patient treatment related in 3rd year
- CTEC review of the role of off-site clinical activities in the total educational program and ways to facilitate the educational achievement of students who are away from West Point Grey

- Develop inter-disciplinary teams at off-site locations to allow students to experience practice in inter-disciplinary settings
- Develop strategies to link students in all Faculty of Dentistry programs in off-site clinical environments
- Establish behavioural outcomes linked to the off-site clinical experiences of the students

Resource Requirements

- Establish community dental clinics for students in all the educational programs
- Establish community infrastructure for patient care and interdisciplinary/interprofessional activities
- Link clinical experience in community with NBOHC
- Develop curriculum to build on community clinical experience
- Link DMD/DH students with residents/specialists off-site
- Develop IT approaches to distribute UBC educational activities to students who are located at off-site clinical venues
- Support for faculty and staff required for the off-site clinical venues
- Resources to spread the oral health message in underserved communities
- Support for students to participate in the summer in clinical venues away from UBC
- Recruit an individual to coordinate the identification and establishment of off-site clinical venues

Outcomes Assessment (Metrics and Qualities)

- Positive reports derived from specific community level surveys and questionnaires
- Positive media reporting related to community work, including recognition of student community service
- Expressed interest among off-site persons in dentistry or dental hygiene as a career
- Active application and successful admissions from persons originating in off-site locations
- Dentistry and dental hygiene graduates begin to establish in these and similar community areas
- Participation of alumni as either clinicians or supervising faculty members at off-site venues
- Number and types of experiences related to the development of cultural competencies
- Numbers and types of extracurricular clinical experiences chosen by students, faculty and staff

Benchmarks

- Ongoing
- 2008 – 09: Establish goals, needs assessment protocols and outcomes instruments. Identify primary site and begin interaction with community leaders at that location
 - 2009 – 10: Establishment of one (1) off-site clinical learning site
 - 2009 – 2010: Rotations of DMD and DH students to off-site clinical venues
 - 2009 – 10: Assessment of initial outcomes and continued planning
 - Ongoing

Strategic Goal 6

Expand the international presence at UBC and UBC's presence globally.

Rationale

A key aspect of the UBC Mission is to achieve outcomes that can benefit BC, Canada and the World.

Internationalism was a key pillar of TREK 2010 and will remain a significant aspect of the new UBC Strategic Plan. Dentistry and Dental Hygiene are becoming global professions with continuing changes to the traditional barriers to mobility, licensure and practice. The opportunities for teaching, research and service extend to international sites and provide ways to extend the influence of achievements at UBC to ever greater numbers of oral health care students, providers and patients. Opportunities exist for joint seminars, lectures and conferences between UBC and international sites.

UBC is also becoming a preferred site for international students to study and learn and this should continue to bring many very highly qualified students to our campus and faculty. International students bring unique sets of life, educational and professional experiences that can enrich the faculty environment and provide additional perspective on our activities. The time is certainly opportune to increase the recognition of Faculty of Dentistry accomplishments world-wide.

Vancouver is recognized as an international city with a multi-ethnic profile. This provides a strong framework for developing international activities. Students, staff and faculty have multiple international connections and collaborations that can be leveraged to increase the Faculty of Dentistry's international presence. In addition we will be able to continue to attract highly regarded international academics to UBC to enhance our teaching, research and service profiles. Internationalism is a strength of UBC and Vancouver and provides a remarkable opportunity to help expand and enhance our programs.

Enabling Activities

- Use the experiences of the European Union and ADEE to help design an action plan
- Actively participate in organizations and initiatives that can promote our international programs at UBC (e.g. NDEB, NDHCB and ACFD)
- Interact with UBC Vice-President of International Affairs (Stephen Owen, ASEAN, etc.)
- Internal interaction with AD/Strategic & External (CZ) re opportunities related to already established programs (e.g. Viet Nam, Laos, etc.)
- Continue to support and expand on current international exchange programs (e.g. Japan, Taiwan, Korea, Hong Kong, EU etc.)
- Partner with other dental schools and dental hygiene programs to establish co-operative relationships and programs (e.g. Dalhousie)
- Investigate the potential for true exchange learning, where students actually enroll in counter-part programs here and abroad
- Increase learning and research opportunities abroad for students. Develop expertise in areas identified in the WHO (2006) report for Oral Health in the Faculty
- Summer overseas mission and exchanges for students and staff
- Develop mentorships with resident/undergraduate student models, for experience in developing countries
- Assess contracts with other countries for exchange programs
- Develop a proposal to ASEAN for a Southeast Asian program to build capacity in the region
- Investigate the formation of Dual/Joint degree programs with international universities
- Establish visiting professorships at UBC to encourage international faculty member to learn and share

- Develop distributed graduate programs that permit students to complete a portion of the program in their home country
- Develop on-line courses to provide expertise to other institutions and to take advantage of their expertise
- Evaluate sites for exchanges/externships for their suitability and fit with academic calendars
- Liase with existing groups that have established international clinics, experiences and opportunities.
- Develop approaches to recruit outstanding international students to graduate programs and specialty programs.
- Establish joint seminars, lectures and conferences to share educational experiences and expertise with international institutions

Resource Requirements

- Develop additional educational experiences for international students
- Advertisement, marketing, recruitment internationally
- Student exchanges to/from UBC
- Faculty exchanges to/from UBC
- Identify International supporters of UBC
- Identify international support for students coming to UBC, i.e. China and Vietnam
- Identify stakeholders internationally who will support UBC
- Link Continuing Dental Education with International efforts
- On line IT to permit video conferencing to share expertise
- Support for students to participate in international experiences
- Resource packets to document Faculty of Dentistry expertise and educational programs
- Recruiting costs for international students
- Facilities development to optimize international on-line interactions
- Support for Visiting Professorships
- On line course development

Outcomes Assessment (Metrics and Qualities)

- Increased requests from foreign dental and dental hygiene programs to establish cooperative and/or exchange agreements
- Increasing numbers of UBC students who utilize the international opportunities
- Positive reporting in the media and recognition of students involved in international initiatives and service
- Interest and initiative from parallel dental and dental hygiene programs in Canada to model our program
- Continuing or increased interest among internationally-trained, non-licensable dentists to attend the IDDCP program.
- Memoranda of Understanding and assess their activity
- Number of funded opportunities for students in international learning experiences
- International visitors, students and scholars, choosing to spend time at UBC
- Numbers of students/faculty involved with international visitors or experiences
- Numbers of on-line international course offerings
- Faculty presentations at international conferences, universities, functions

Benchmarks

- Ongoing
- 2008 – 09: Development of Stage 1 goals and 2-year action plan
 - 2009 – 10: Implementation of action plan and re-assessment of goals
 - 2010: Assess impact of changing admissions protocols on the IDDCP program
 - 2012: Global awareness of UBC for our service, education, and research

Strategic Goal 7

Develop and maintain outstanding facilities to support students through their programs in Dentistry.

Rationale

Enhancing the Student Experience is one of the three priority areas for the Faculty of Dentistry.

Excellent facilities for teaching and learning are critical in support the goal to have the most outstanding educational programs. Outstanding facilities for learning, research and patient care are thus critical to achieve our priority; to enhance the student experience. Student learning and study/social facilities do not currently match the quality of the clinical facility in the Nobel Biocare Oral Health Centre (NBOHC). Consequently there may be a slight disconnect between the NBOHC experience and the remainder of the students' learning experiences in other venues on the UBC campus. Importantly even greater pressure on the learning venues in the John B. Macdonald Building (JBM) and NBOHC is likely to occur as increased pressure on teaching space occurs concomitant with the increasing class sizes in the Faculty of Medicine and with the growth of the Entry to Practice Dental Hygiene BSc program. Medicine has also increased technology-enabled learning space required for the year 1 and 2 curriculum, further increasing the DMD students' expectations for the capabilities of learning spaces. The spaces that students use to learn cast a major reflection on our commitment to the quality of their education and on their views of the overall quality of the educational program.

The John B. Macdonald Building is in poor condition and not scheduled for renewal through UBC RENEW until 2020. Although JBM can be very expensive to renovate there is space in the building that can be effectively used to enhance programs of teaching, research and service. It is important to develop a big vision for a state-of-the-art learning facility (i.e. a new building or full renovation of the JBM) around which to build our fundraising goals as the UBC Campaign begins. It is also critical to utilize the JBM space to insure that our programs are secure in their learning environments and not subjected to external pressures as Medicine expands. The John B. Macdonald Building represents an opportunity to be proactive and create outstanding new facilities that will support our excellent students, staff and faculty who all require an excellent workplace environment.

Enabling Activities

- Work with Development Group to develop fundraising campaign to convert space in JBM to effectively support teaching, research and service
- Develop an innovative funding strategy similar to that developed for NBOHC
- Renovate JBM to create new learning spaces
- Renovate JBM to create new student social areas
- Renovate JBM to create new dental specialty treatment clinics
- Create a big vision for JBM in the event that funding is available to "renew" the entire building at some future date
- Identify the space needs of new graduate programs and use currently unoccupied space in JBM to address these needs
- Develop approaches to distributed learning and renovate
- Identify additional small group learning space that can be used to provide the curriculum
- Provide the necessary technology enhancements to insure that the learning spaces have those capabilities

Resource

Requirements

- New/enhanced student lounge
- Computer Learning Centre in JBM
- New clinical facilities—off-site
- Maintain NBOHC as state-of-the-art facility

- New technology for dental care: CEREC, LAVA, laser
- Video conferencing potential
- Small group learning rooms
- Electronic/digital resources to enhance learning
- Ultimately: new/renovated JBM
- Dental specialty clinic
- Small group learning room renovations
- New computer/software for patient care in NBOHC
- Renovation of space for CFI imaging centre
- Renovation of research laboratory space in JBM to current standards
- Animal care facility for conventional animals

Outcomes Assessment (Metrics and Qualities)

- Facilities Outcome Metrics
- Number and quality of applicants
- Admissions acceptances
- External surveys of programs
- Recognition by academic peers
- Benchmark institutions
- Quality of faculty
- Alumni surveys
- Donor support
- Research productivity

Benchmarks

- 2008: modifications to old clinic space for use as electronic learning centre complete
- 2009 onward: fundraising goals established (need input from Development re: timeline)
- 2010 onward: meet increased UBC fundraising goals for new campaign
- 2016 onward: new building site improves number and quality of applicants, alumni support
- 2018: a new Dentistry building

Strategic Goal 8

Increase Research and Scholarly Activity

Rationale

UBC is a major research intensive university and it is the expectation that all faculties will have an emphasis on original research and scholarship in their portfolio of activities. This expectation, “the generation of new knowledge” is a critical aspect of all faculty members who are reviewed for tenure and promotion and thus it is critical for the Faculty of Dentistry to insure that there is an emphasis on establishing the foundation for continued excellence in research. This responsibility also extends to the need to address CIHR’s mission statement. The new information generated from this research is critical in generating the evidence to support the content contained in our curriculum, consequently individuals engaged in research can become more effective educators as the students will be learning at the cutting-edge of any discipline. Active research laboratories also provide career training to graduate students interested in developing a balanced academic career of research, service and teaching. In particular there is an emphasis at UBC on graduate education at the PhD and MSc levels and these graduate students require access to productive research laboratories to complete their thesis and dissertation research projects. The university environment expects the Faculty of Dentistry to be productive in research and that criterion is a critical outcome measure in evaluations of the Faculty by the central administration.

New knowledge generated by research advances patient care. It is critical to keep our curriculum current that the faculty members are active in the generation of new knowledge. Evidence-based clinical practice is based on research and UBC should be actively engaged in generating that evidence. Research in the effective strategies for teaching and learning is also a critical area of scholarship to help in faculty development, insure an effective curriculum and graduate students as the forefront of their profession. Advancements in teaching, research and service are all directly related to the generation of new knowledge in these areas by faculty members active in research and scholarship.

Increasing research and scholarly activity can be represented by multiple measures that could include more research active faculty, more research space, more grants, more publications and greater research eminence. Increased efficiency in the processes can increase capacity by providing valuable time to researchers without requiring major recruitments or renovations. Increased research funding will increase recovery of indirect costs that in new UBC budget model would directly support research initiatives.

Enabling Activities

- Support cluster development (who and where are we)
 - Define research focus of each cluster
 - Define strengths and relative weaknesses of each cluster
 - Define current infrastructure in place
 - Develop a 5-year working model of cluster development
 - Define support requirements (ie people, equipment and space)
- Develop faculty recruitment plan based on strengths and weaknesses
- Develop a faculty research space renovation plan based on clustering of research foci
- Recruit senior investigators in key areas of development
- Formulate hiring plan for junior investigators in area requiring further enhancement (naturally enhance strengths)
 - Develop faculty development program for junior faculty
 - Establish faculty mentors for junior faculty
 - Support to attend conferences and events to build potential
- Faculty development plan – mentoring, writing, grants, time preservation
- Seed money to facilitate research activities of junior faculty and foster development of senior faculty new initiatives/collaborations

- Tangible rewards to senior faculty for mentoring
- Encourage participation in TAG programs to master the fundamentals of the Scholarship of Teaching and Learning
- Development of approaches to foster collaborations and increase interdisciplinary research
- Creation of a Statistical support function either through recruiting an individual or creation of a “virtual” statistical support network
- Identify research/scholarship funding opportunities outside the traditional areas of support

Resource Requirements

- Research Faculty Recruitment
- Endowed Chairs for Faculty
- Research Faculty Start-up funds
- Research Equipment to facilitate projects – Core development
- Seed/Pilot project funds for jr faculty and new initiatives
- New/Additional Laboratory Space, biomedical, biomaterials, epidemiology, clinical research
- Clinical Research Centre – facility and support core
- CFI Phenogenomics Bioimaging Core
- Development of DMD-PhD and Specialty-PhD programs
- Post-Doctoral Research Fellow awards
- Support to attend conferences and training sessions
- Renovation funding to improve/increase space for research/scholarship
- Mid-Career retraining support
- Grant facilitator/writer to assist in identifying funding opportunities and submitting proposals
- Statistical support/individual for all research projects

Outcomes Assessment (Metrics and Qualities)

- Number of grants submitted and ultimately funded
- Number of co applicants on submitted grants
- Number of grants funded by local, national and international granting agencies
- An increase in the number of publications with an associated increase in journal impact factor
- An increase in the citation index of published manuscripts
- An increase in the number of Undergraduate, Graduate and Post Doctoral fellows working at our institution
- An increase in the number of agency funded graduate students
- An increase in number of successful patents filed
- Relative position of dentistry's research productivity in Vice President's Research Report
- Increased numbers of MSc and PhD graduates
- Alumni in research/scholarship position in other institutions
- Faculty presentations reporting research/scholarly accomplishments
- Numbers of collaborations, local, regional and international supporting the research/scholarship activities

Benchmarks

- 2013: Double Research Funding in Faculty of Dentistry
- 2013: Highest level of funding of Canadian Faculties of Dentistry
- 2013: 90% of Faculty of Dentistry faculty actively engaged in productive research projects
- 2013: Double the number of publications from the Faculty of Dentistry
- 2013: Double the impact factor of publications from the Faculty of Dentistry
- 2013: All DMD and DH students have the opportunity to engage in a research project
- 2013: DMD-PhD program developed and implemented
- 2013: Dental Specialty – PhD programs developed and implemented with students enrolled
- 2013: Increase the total number of funded projects supporting Faculty research and scholarship
- 2013: Increase funding from sources not traditionally used to support research/scholarship in the Faculty of Dentistry

Strategic Goal 9

Develop New and Expanded Graduate/Specialty Programs

Rationale

There is a recognized shortage of dental and dental hygiene academics prepared to conduct outstanding research and teach in the dental disciplines. The shortage will become more acute due to the aging of current faculty and expansion of the number of North American dental schools and dental hygiene programs. In addition there is increasing demand for dental specialist care in B.C., Canada and the world to meet the needs of the population. In particular it will be critical to prepare the next generation of dental faculty members with both the PhD and clinical specialties. Currently many aspects of craniofacial biology are well positioned to effectively utilize biotechnology advances (products and services) to develop novel therapeutic approaches to treat craniofacial diseases/disorders. However it will be critical to have an appropriately prepared set of faculty and dental professionals to realize these opportunities. Generation of PhD-specialty programs will help to achieve the long term goals of dental academic institutions.

Expansion of professional specialty degree programs to encompass all recognized disciplines will enable more effective delivery of novel complex treatment modalities and a more complete educational continuum within the Faculty of Dentistry. An all inclusive list of professional specialty programs in one institution will allow for the more effective management of complex craniofacial disorders that could be referred from across the province or western Canada since patients would be able to receive comprehensive care in a single location and DMD students will be able to observe the full range of treatment. In addition, graduate programs will be well positioned to test and evaluate novel therapeutic approaches prior their use in the undergraduate programs and general practice by conducting clinical research and monitoring patient outcomes.

Enabling Activities

- Develop a basic science graduate student recruitment initiative
 - Work with Faculty of Graduate Studies to develop a communication and recruitment strategy (science fairs, research days, update our website, recruitment of tricouncil award winners) to attract the best graduate students
 - Consider renaming of our graduate degrees in light of new research focus areas
 - Develop a bursary and scholarship support program
 - Develop a coordinated process for graduate admissions
 - Develop a fund to support graduate student research
 - Mentorship of graduate students and career development
- Develop existing and new professional graduate Diploma /MDS and postgraduate programs
 - Develop business models appropriate to each specialty program
 - Develop a communication strategy to attract the best students
 - Increase interaction with expanded undergraduate student body
 - Increase the number of international seats within the graduate programs
 - Develop a bursary and scholarship support program for students interested in a research career
 - Develop a research support initiative that supervisors can apply to for funding through the Research Committee
- Develop an academic track (PhD/DMD and PhD/DH tracks)
 - Identify financial support for students in these tracks
 - Organize career mentorship structure for these students
 - Establish a support mechanism "niche" for the students
- Develop business model for the Sterilizing Monitoring Facility such that it can help support tuition fee waver and salaries
- Develop a coordinated Scheduling for graduate/specialty courses and clinical activities
- Organize a professional applied Masters degree in conjunction with Continuing Studies

- Investigate options for part-time enrolment in dental specialty programs
- Create a mechanism to monitor career progress of alumni for these programs and their continuation of academic careers

Resource Requirements

- Graduate Student Recruitment – National/International
- Graduate Student Stipends, DMD/PhD stipend support
- Graduate Student Research Support
- Post-doctoral research fellow mentoring
- Develop DMD-PhD and Specialty-PhD programs
- Research space to support the student projects
- Curriculum modifications to allow flexibility for combined program students
- Recruitment of faculty with active research capable of mentoring the research component of student programs
- Renovation of JBM space to create a dental specialty clinical area
- Statistical support for student research projects

Outcomes Assessment (Metrics and Qualities)

- Increase the number of Senate approved Professional specialty programs
- Increase in the mean GPA of applicants accepted into our programs
- Increase in the number of agency funded students and fellows
- Increase in the total \$ amount to support tuition fee waivers/salaries
- Development of MOUs between international universities and UBC to foster a steady stream of high quality graduate students to our programs
- Increase in the number of alumni applicants to our Graduate/Postgraduate programs
- Number of successful PhD graduates moving on to faculty positions
- Tracking of alumni of all graduate/specialty programs

Benchmarks

- 2013: Double the number of graduate students in the Faculty of Dentistry
- 2013: Double the funding for graduate students in the Faculty of Dentistry
- 2013: Double the number of graduate student publications
- 2013: Place all graduating grad students in top quality labs and positions
- 2013: Increase interest of grad students in academic careers
- 2013: 10 students enrolled in DMD-PhD program
- 2013: 10 residents enrolled in Specialty-PhD program
- 2013: Double the number of International grad students enrolled in MSc and PhD programs

Strategic Goal 10

Develop Research and Scholarship Support Mechanisms

Rationale

Effective research requires well prepared scientists capable of designing their experiments, conducting the research and interpreting the results. These highly educated individuals have not had extensive experience in many of the operational and financial aspects necessary to manage the research enterprise in a laboratory. Off-loading of the business side of laboratory research to a central administrative unit will allow the scientists to focus on their area of strength, scientific investigation and allow administrative managers to conduct the support of laboratory research using their expertise. This shifting of responsibility will require Dentistry to organize a research/scholarship support core and manage this administrative burden.

Ultimately this will allow principal investigators and coapplicants time to focus on project design, fostering of collaborations, and increasing grant submissions. As these more widely structured research initiatives are developed additional support personnel will be required to help manage divergent applications associated with RFA's in ever expanding areas of research. A Central biosciences core facility could effectively participate in several areas including purchasing in order to effectively run and manage expensive state-of-the-art bioimaging machinery used in modern day research.

As the goal of a state-of-the-art bioimaging facility becomes a reality and thus an asset to the greater university the need for a centralized administrative support service will be required to secure our role within the university. A clinical trial research facility will also be necessary to help develop the translational research to develop new therapies and a set of centralized support personnel is required to ethically manage and cost effectively run human clinical trials to test novel therapeutic products and services. A core support for statistical analysis would aid in the development of research protocols and the interpretation of the resulting data. A research/scholarship support service and clinical trial facility will guide inexperienced clinical faculty (part & full time) and junior research track faculty through the grant writing and management process. This centralized support could then serve as a resource information centre for the research community.

Enabling Activities

- Develop research space requirements based on cluster focus
 - Molecular and cellular biology
 - Population Health
 - Clinical Trials
- Research/scholarship Central office
 - Grant application
 - Grant management (budget, ethics, animal care)
 - Application for Graduate Student/Post-Doc scholarship programs
 - Support for proof-reading and grant/manuscript preparation
- Core Biomedical facility
 - Determine equipment in place (strength and weakness)
 - Determine 5 year requirements (personnel and equipment)
 - Recruit key individuals that support development of the facility
- Support Proteomics facility
- Clinical trial facility
 - Define cluster groups and members that may immediately benefit from this facility
 - Determine requirements of areas to be developed
 - Strategically recruit to develop facility

- Develop Communication Strategy to ensure community is aware of research activity (Grants/Results/ Knowledge Translation)
- Develop a Statistical support function to assist investigators in the preparation of research proposals and interpretation of resulting data
 - Integrate statistical core with Research Design support
- Develop a cluster focus on Educational Research
 - Recruit an individual with expertise in Educational Research
 - Identify funding opportunities for Educational Research
- Develop a cluster focus for Population Health

Resource Requirements

- Personnel to staff Research Support Core – Grant manager, Accountant, Data manager, Purchasing Agent
- Personnel to staff Research Support
- Space renovation to match functions of core
- Grants management Software
- Accounting Software
- Database of purchasing/productivity
- Website development
- Funding for Statistical Support pre- and post-award
- Renovations for Clinical Research Centre
- Recruitment of a Faculty member for Clinical Research Centre
- Identification of grant opportunities

Outcomes Assessment (Metrics and Qualities)

- Ultimately more grants/publications/students
- To support development of these initiative funding to be secured from national agencies, corporate partners and private donors
- Increased facility use faculty, university and others
- Increase in the number of corporate funded clinical trials
- Evidence of public awareness (radio, TV & press)
- Increased investigator satisfaction with research/scholarship climate
- More effective management of grant budgets and fewer over-spent accounts

Benchmarks

- 2010: Support Core for grant submission
- 2010: Support core for grant management
- 2011: Central purchasing activity for research projects
- 2011: Database monitoring research purchasing and research productivity
- 2011: Research-intensive web site
- 2012: All research personnel engaged in research and business process management

