UVic Health Sciences Initiative

“Advancing Lifelong Health for All”

Tony Eder, Executive Director, Academic Resource Planning
Lisa Kalynchuk, Associate Vice-President Research
Health Sciences Initiative (HSI)

Purpose: Enhance the quality and raise the profile of health research and academic programming at UVic

Process: Work being advanced by an advisory group, which will produce a concept paper in spring 2019

- Launched with two events for Deans and Associate Deans / Research Centre Directors
- Executive support
- Joint initiative by VPAC and VPR
- Alignment with Strategic Framework, Strategic Research Plan, and other institutional plans
HSI Advisory Group Members

- Lisa Kalynchuk, OVPR
- Tony Eder, VPAC
- Bruce Wright, DMS
- Chris Goto-Jones, HUMS
- Scott Hofer, IALH/SOSC
- Caroline Cameron, SCI
- Alex Brolo, CAMTEC/SCI
- Karen Urbanowski, CISUR/HSD
- Nick Dechev, ENG
- Francis Lau, HSD
- Ryan Rhodes, EDUC
- Charlotte Loppie, HSD
- Mike Masson, SOSC
- Robin Syme, CanAssist
- Jennifer Vornbrock, VPER

Andrea Knittig, OVPR
Kaitlyn Roland, OVPR
Ased Said, VPAC
Recommendations will be organized within 4 pillars:

- Research Priorities
- Academic Programs
- Structures
- Space / Infrastructure

And three timelines:

- Short term (1-2 years)
- Medium term (3-5 years)
- Long term (6-10 years)
HSI Process

Planning and development
Support from University Executive
Consultation:
Deans, Associate deans, Research centre directors

- Department Heads Division Medical Science
  - Health programs
  - HSD Directors

- University of Saskatchewan
  - Faculty Survey Conducted

- University of British Columbia
  - Island Health

- BC SUPPORT Unit

- Michael Smith Foundation for Health Research:
  - BC’s health research funding agency

Blindly Advisory Group meetings

- Feb 4/19
  - SFL Simon Fraser University
  - Town Hall

- Feb 19/19
  - SFU Simon Fraser University
  - Town Hall

- Feb 25/19
  - Northern College of Medicine

- Mar 4/19
  - Science

- Mar 18/19
  - CIRCLE

- Apr 1/19
  - CIRCLE
  - Town Hall

- Apr 7/19
  - Fine Arts

- Apr 10/19
- Apr 15/19
- Apr 19/19
- May 13/19
- May 27/19
- Jun 4/19

Other data sources considered:
- UVic research expertise
- UVic research centres
- UVic academic programs
- UVic research funding
- External program/structure scan
  - Federal and Provincial Government priorities
The concept paper is the intention to move forward -- both a roadmap and the start of a conversation.
The Research Pillar

Lifelong Health

- Indigenous Health
- Mental Health
- Translational Medicine
- Healthy Aging

- Biomedical Technologies
- Health Humanities
- Proteomics
- Novel Materials
- Social and Environmental Determinants
- Advanced Data Analytics
- Health Services and Policy Evaluation
- Neuroscience
- Arts
The Research Pillar: Measuring Success

- A primary measure of success will be an increase in CIHR funding revenue, from <1% to closer to 3% (within 5 years).

- This initiative will create a shift toward valuing the collective, in addition to traditional research metrics, including building relationship with community, building collaborative and interdisciplinary activities and research teams on campus, advocating for services and policy and implementing changes in practice. This will also build support for research outputs from publications to artistic contributions.

- Another important marker of success will be the establishment of our “Health” brand, as measured by external surveys and social media buzz.

- Growth in our health profile will contribute to an increased number of first choice faculty hires and top trainees.
The Program Pillar

**Recommending principles** to define health programming at the University of Victoria: interdisciplinarity and opportunities for collaboration; high quality students and programming; alignment with research strengths; and, a focus on experiential learning that supports students’ academic and personal success.
Students at UVic already enrol in a range of high quality undergraduate and graduate health programs in the Faculties of Science, Social Sciences, Education, and Human and Social Development and the Division of Medical Sciences.

These programs provide direct pathways to a wide range of outcomes including post-graduate studies, medical education, professional education and post-graduation employment in health fields.

<table>
<thead>
<tr>
<th>Biology</th>
<th>Psychology</th>
<th>Chemistry</th>
<th>Nursing</th>
<th>Biochemistry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exercise Science</td>
<td>Kinesiology</td>
<td>Health Info Science</td>
<td>Public Health</td>
<td></td>
</tr>
<tr>
<td>Biomedical Engr</td>
<td>CYC</td>
<td>Social Work</td>
<td>Microbiology</td>
<td></td>
</tr>
<tr>
<td>Physics</td>
<td>Neuroscience</td>
<td>Soc. Dims Health</td>
<td>Medical Physics</td>
<td></td>
</tr>
<tr>
<td>Chem for Medical Sci</td>
<td>Others</td>
<td></td>
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</tbody>
</table>
The Program Pillar: Current “Differentiators”

- Differentiators provide an **opportunity to build on our strengths**.
- Current programs that **differentiate** the University of Victoria from local comparators are:
  - Unique to UVic
  - In high demand
  - Build partnerships
  - Meet labour market needs

<table>
<thead>
<tr>
<th>Current Differentiator programs include:</th>
<th>Differentiator content and attributes include:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biomedical Engineering (BEng)</td>
<td>Indigenous-focused program streams</td>
</tr>
<tr>
<td>Chemistry for Medical Science (BSc)</td>
<td>Experiential Learning</td>
</tr>
<tr>
<td>Health Information Science (BSc, MSc, PhD)</td>
<td>Co-op and practicum</td>
</tr>
<tr>
<td>Medical Physics (MSc, PhD)</td>
<td>Work-integrated learning (WIL)</td>
</tr>
<tr>
<td>Social Dimensions of Health (MA, MSc, PhD)</td>
<td>Honours research</td>
</tr>
<tr>
<td>Others</td>
<td></td>
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</tbody>
</table>
Some of the questions that the Advisory Group considered

• How do we satisfy the strong demand for health programs?
  • Currently that demand is largely met through self-designed programs (biology, psychology, chemistry)
  • Are we successfully advertising and communicating our health programs? Can we do better?
• How do we build on existing program strengths and ensure alignment with research strengths? What differentiates UVic?
• How do we demonstrate positive outcomes for all students – as one example: those who gain acceptance to medical school and those who do not.
  • What are the pathways?
  • How do we communicate those outcomes? (Student stories?)
  • How do we guide students?
• What advantages do experiential education and WIL bring to our programs?
**The Program Pillar**

**Existing opportunities underway**

**Current expansions:**

- Health Information Science (funded UVic/BCGov)
- Nurse Practitioner and Advanced Nurse Leadership (funded BCGov)
- Biomedical Engineering (funded BCGov)
- direct-entry EPHE Kinesiology (BSc) and RHE (BA)

Fill in gaps that draw on **labour market and program demand** and **social responsibility**

**Possible new opportunities**

- Health Humanities – minor
- Health and Society – expand to major
- Health and Community Services – re-focus
- Biomedical Engineering graduate programs (MEng, then MASc, PhD)
- Others?

Is there an opportunity for a **new interdisciplinary program**?

- BSc in Health Sciences, BA/BFA in Health Studies
- Streams informed by signature research areas
- Capitalize on existing courses with a new health sciences course each year as the “glue”
- EETs stay with departments offering courses
The Program Pillar

Sciences (BSc) Health Studies (BA / BFA)

- Data Analytics
- Biomedical
- Other
- Technology
- Environment, Climate and Health
- Social Dimensions of Health
- Health Humanities
- Indigenous Health
- Health and Arts
- Other

Other stream ideas:
- Mental Health
- Aging
- Comparative Health
- Food/Water Security
- Global Health
- Substance Use
- Health Psychology
- Lifespan
- Analytics
- Policy
- Management
- Etc.
The Program Pillar

**Common Courses:**
- Year 1: Survey course
- Year 2: Methods
- Year 3: Research Themes Topics
- Year 4: Honours
- Co-op work-terms

**Core Competencies**

<table>
<thead>
<tr>
<th>Year 1</th>
<th>HS100A/B (3.0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 2</td>
<td>HS200A/B (3.0)</td>
</tr>
<tr>
<td>Year 3</td>
<td>HS300A/B (3.0)</td>
</tr>
<tr>
<td>Year 4</td>
<td>HS400A/B (3.0)</td>
</tr>
</tbody>
</table>

+ Other relevant UVic Courses
*EETs go to department
The Program Pillar: Resources

• How can we strengthen and scale existing programs?
  • Advertising, communications, recruitment, web resources
  • Demonstrable outcomes

• What resources and supports are needed?
  • Preserving existing EETs, even grow
  • Resources to strengthen existing programs, planned expansions, and new programming opportunities
## The Program Pillar: Support Strategies

### Short term

1-2 years

- Work with existing programs to explore health branding and marketing opportunities
- Develop and implement health programs communications plans
- Consider alignments with HSI Research Pillars
- Implement planned expansions (HIS, BME, Kine, NP)
- Form BSc/BA/BFA health programming planning group
- New BSc/BA/BFA health program to senate
- Look at leadership, advising, teaching and research capacity for new programs
- Develop community partnerships through co-op (i.e., FNHA, VIHA, PHSA, BC Cancer)
- Work with government on PT/OT academic and clinical opportunities at UVic
- Work with Ministries on supporting health human resourcing needs through program expansions (eg NP)
- Explore UVic graduate program opportunities for IMP MD students
### The Program Pillar: Support Strategies

<table>
<thead>
<tr>
<th>Medium term 3-5 years</th>
<th>Long term 5-10 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Develop BSc/BA/BFA program proposal(s); seek approvals</td>
<td>• Scale BSc/BA/BFA and graduate health programs</td>
</tr>
<tr>
<td>• Launch BSc/BA/BFA Health programs</td>
<td></td>
</tr>
<tr>
<td>• Develop community partnerships through co-op (i.e., FNHA, VIHA, PHSA, BC Cancer)</td>
<td></td>
</tr>
<tr>
<td>• Launch new grad programs aligned with research pillars</td>
<td></td>
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<tr>
<td>• Seek donor funds for graduate student fellowships in health sciences</td>
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The Structures Pillar: Research Centres and Clusters

- A conduit to **raise the profile** of health research at UVic
- Encourage **collaboration** between faculty members and research centres
- Effective way to support interdisciplinary research

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Centre</th>
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</thead>
<tbody>
<tr>
<td>- Focuses on one topic</td>
<td>- Broad mandate</td>
</tr>
<tr>
<td>- No policies</td>
<td>- Senate approved</td>
</tr>
<tr>
<td>- Easily formed, adaptable</td>
<td>- Long standing</td>
</tr>
<tr>
<td>- Few resources</td>
<td>- Existing funding and easier to protect time</td>
</tr>
<tr>
<td>- May not contribute to reputation</td>
<td>- Should enhance brand</td>
</tr>
<tr>
<td>- Can make quick progress</td>
<td>- Variable progress</td>
</tr>
<tr>
<td>- No student support</td>
<td>- Student affiliates</td>
</tr>
<tr>
<td>- People want to work together collaboration</td>
<td>- Often gaps in expertise that impede</td>
</tr>
</tbody>
</table>
The Structures Pillar: Research Centres and Clusters

- **Opportunities** for clusters have been identified in the area of aging, proteomics, neuroscience, material science and global health.
- For example, current CRC Tier 2 recruitment into aging cluster:
The Structures Pillar: Institutional Partnerships

Some examples of future opportunities;

- Island Health Clinical Research Institute Partnership
  - Housed at DMS (resourcing, funding, structure, governance to be discussed)
- BC Cancer Agency
- Proteomics (UBC)
- Healthy Aging (UBC)
- Stem Cell (SFU)
- Health Authorities (FNHA, PHSA)
- Build relationships in our own backyard (data commons, civic hub, digital supercluster)
The Structures Pillar: Health at UVic

Health research and programming are spread across the university.
Are there advantages to creating something more visible for health?

For example, where to situate BSc/BA/BFA Health programming?

We have not unlocked the secret to being successful in INTD – what should we do?

Would we consider opportunities to align other departments and/or programs across campus?

Would we consider opportunities to better align with research centres/clusters?
The Structures Pillar: Health at UVic

- What should we do?

<table>
<thead>
<tr>
<th>Faculty of ...</th>
<th>...are there other areas that might align well with this?</th>
</tr>
</thead>
<tbody>
<tr>
<td>School of Interdisciplinary Health Sciences (?) NEW</td>
<td>School of...</td>
</tr>
<tr>
<td>• Health Science (BSc) NEW</td>
<td>• Program 1 (BSc)</td>
</tr>
<tr>
<td>• Health Studies (BA/BFA) NEW</td>
<td>• Program 2 (BA)</td>
</tr>
<tr>
<td>• Others</td>
<td>• Program 3 (BA)</td>
</tr>
<tr>
<td>• Future grad programs (MA, MSc, PhD)</td>
<td>• Grad program 1 (MSc)</td>
</tr>
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<td></td>
<td>• Grad program 2 (PhD)</td>
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<tr>
<td></td>
<td>• Grad program 1 (MA, MSc, PhD)</td>
</tr>
<tr>
<td></td>
<td>• Grad program 2 (MA)</td>
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<td></td>
<td>Others?</td>
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## The Structures Pillar: Support Strategies

<table>
<thead>
<tr>
<th>Period</th>
<th>Strategies</th>
</tr>
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<tbody>
<tr>
<td><strong>Short term</strong></td>
<td></td>
</tr>
<tr>
<td>1-2 years</td>
<td>• Expand research mandate for IALH</td>
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<td></td>
<td>• Consider proposal to merge CAMTEC and CFBR</td>
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<td></td>
<td>• New leadership for CISUR</td>
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<td></td>
<td>• Develop new financial sustainability model for centres and incentivize</td>
</tr>
<tr>
<td></td>
<td>engagement</td>
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<tr>
<td></td>
<td>• Support aging cluster and pursue opportunities for other clusters</td>
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<tr>
<td></td>
<td>• Pursue opportunities within digital supercluster</td>
</tr>
<tr>
<td></td>
<td>• Advance institutional partnerships</td>
</tr>
<tr>
<td><strong>Medium term</strong></td>
<td></td>
</tr>
<tr>
<td>3-5 years</td>
<td>• Continue to invest in research clusters</td>
</tr>
<tr>
<td></td>
<td>• Advance institutional partnerships</td>
</tr>
<tr>
<td><strong>Long term</strong></td>
<td></td>
</tr>
<tr>
<td>5-10 years</td>
<td>• Align changes within structures pillar with outcomes from infrastructure</td>
</tr>
<tr>
<td></td>
<td>pillar (capital)</td>
</tr>
</tbody>
</table>
# The Infrastructure Pillar

<table>
<thead>
<tr>
<th>Research space</th>
<th>Research platforms</th>
</tr>
</thead>
<tbody>
<tr>
<td>BME research labs</td>
<td>Meta data repository, data commons, biobank</td>
</tr>
<tr>
<td>Level 2 Labs</td>
<td>Mobile health</td>
</tr>
<tr>
<td>Proteomics, ‘omics</td>
<td></td>
</tr>
<tr>
<td>Shared labs</td>
<td></td>
</tr>
<tr>
<td>Centres</td>
<td></td>
</tr>
<tr>
<td>Public Health</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Academic space</th>
<th>Infrastructure partnerships</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT/OT</td>
<td>Pop data BC</td>
</tr>
<tr>
<td>NP</td>
<td>Health data coalition</td>
</tr>
<tr>
<td>HIS</td>
<td>Industry collaboration (i.e., CAMTEC model)</td>
</tr>
<tr>
<td>KIN</td>
<td></td>
</tr>
<tr>
<td>Classrooms</td>
<td></td>
</tr>
<tr>
<td>Faculty offices</td>
<td></td>
</tr>
<tr>
<td>Grad student space</td>
<td></td>
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</tbody>
</table>
The Infrastructure Pillar: Capital Planning

- Is there a need for **multidisciplinary spaces** to align activities across Faculties and units, promote collaboration, promote sharing of resources (such as labs) and shared platforms for research.
- Could this include **expanding/extending current spaces** for research centres, lab space, programming or **building new** interdisciplinary research building.
- Can government priorities help with space? (i.e. PT/OT expansion)
- Some possibilities for creating appropriate space

<table>
<thead>
<tr>
<th>Example #1: Expanding Space</th>
<th>Example #2: Interdisciplinary Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Allows inter-professional education opportunities across professional programs</td>
<td>• Flexible and shared spaces</td>
</tr>
<tr>
<td>o “Train together, work together” reflects implementation</td>
<td>• Facilitates the collision of research ideas and opportunities</td>
</tr>
<tr>
<td>o IMP, HINF, Nursing, PH, Others?</td>
<td>• Enables engagement</td>
</tr>
<tr>
<td>• Considers animal care, biosafety and equipment needs and space</td>
<td>• Spaces for Centres</td>
</tr>
</tbody>
</table>
# The Infrastructure Pillar: Support Strategies

| Short term 1-2 years | • Open conversation about creating shared “platforms” for research  
| • Conversations at Deans’ Council on the “types” of spaces required in the future (rather than ownership) |
| Medium term 3-5 years | • Consider a Clinical Innovation Hub to bolster research links with Island Health  
| • Start a funding campaign for capital and research support |
| Long term 5-10 years | • Continue to implement a capital plan to increase research and meeting space |
Leadership and Governance

• Academic and administrative leadership over HSI as a whole
• See this at the level of the university (institutional initiative)
• Joint with VPAC and OVPR – Special Advisors?

• Recommend a series of working groups for individual pillar-specific activities
• For example,
  • Research
  • Programs and curriculum
  • Capital planning
HSI Next Steps…

- **Concept Paper**
  - **Short Term Strategies**
    - ACTION
  - **Medium/Long Term Strategies**
    - Approval
    - Planning Processes
    - Long-term ACTION
Concept paper and next steps

• Concept paper to Executive in June / July
• Endorse direction with Senate and Board of Governors

• Extensive consultations on recommendations throughout fall 2019
  • Deans’ Council, Faculty councils, RAC, COCD, Senate, BoG, Centres
• Set up working groups in early 2020
• Advance short term recommendations and plan for medium and long term recommendations
• Budget for some activities – would need to identify resources for others