

UNIVERSITY  
*of* GUELPH

College of  
Biological Science

**STRATEGIC PLAN: 2018-2023**

**Inspired  
Research and  
Scholarship  
in Biology**





# A message from the Dean

When I took over as Dean in August of 2015, the college was at a crossroads. It was coming out of a decade in which it was reorganized administratively, physically reconfigured in a new building, and had completed a major curriculum restructure. The burning question was “where do we go from here?” Of course, I had my own ideas, but I wanted the college to articulate its own vision for the future. So, in 2016 we embarked on a process that would last more than a year. We started with an open call for faculty, staff and graduate students to join a Strategic Planning Committee. We largely followed the process laid out in Tromp & Ruben (2010)<sup>1</sup>.

*Over the course of about a year, the committee held many meetings, town halls, heard from senior leaders in the University, from the Council of Ontario Universities, from employers, alumni, students, and others.*

Various iterations of the plan went back and forth to the college for input and eventually approved. I am pleased to say that the final plan received unanimous support. That’s not to say that everyone agrees with everything in the plan, but taken as a whole the college expressed strong support for the plan.

In 2021, the College of Biological Science will celebrate its 50th anniversary since its founding. Building on the past successes of our faculty, staff, students and alumni, this plan very much describes who we are, what we aspire to be and how we will get there together. I look forward to helping the college achieve these goals!

*Jonathan Newman*

**Dean, College of Biological Science**

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<sup>1</sup>Tromp, S.A. and B. Ruben. 2010. Strategic Planning in Higher Education, 2nd ed. National Association of College and University Business Officers (NACUBO) Press.

## **ABOUT THE COLLEGE OF BIOLOGICAL SCIENCE**

The College of Biological Science (CBS) at the University of Guelph (U of G) is a globally-recognized academic faculty with a mission to expand the understanding of life, from DNA to cells to complex ecosystems.

*CBS contributes significantly to U of G's reputation of excellence in science – supporting the University's global ranking in the top 20% for research and training in the field of biology as well as its top 2 national, and top 50 international rank in plant and animal science.*

CBS houses 100 full-time faculty and 50 full-time staff, striving to meet or exceed targets for the employment of members from equity-seeking groups. The college attains approximately \$15M in funding for basic and applied research every year. Nearly 4500 students call CBS home and the college offers 13 undergraduate and 11 graduate degree programs across 3 departments: Human Health and Nutritional Sciences, Integrative Biology, and Molecular and Cellular Biology.

## **STRATEGIC PLANNING PROCESS**

In 2016, CBS initiated the creation of a new 5 year strategic plan with the support of the CBS Dean's Council, a Strategic Planning Committee, as well as other staff and faculty.

The impetus for this plan was to help CBS remain focused and intentional in its work, with a view to maintaining and enhancing its regional and global excellence in the field of biology. Additionally, it was thought that a new strategic plan would help articulate a clear identity and a mission and vision, both internally, and also with respect to incoming students and staff and faculty.



## **CBS'S DISTINCT IDENTITY**

CBS's identity in the regional and global academic landscape is powered by the unique fusion of several core elements:

**Biology** – Focus on biology as an overarching discipline to understand, integrate and relate the micro and macro systems that govern life

**Impactful Research** – Intrepid and inter-disciplinary discovery research in biology that has broad translational impact beyond the laboratory, including creation of novel IP, change in policy and standards, and inclusion in various teaching media

**Integrative and Student-Centred Education** – Integration of teaching and research in biology education where experiential learning is coupled with a comprehensive foundation in science

**Collaboration** – Inherent competence for working together both internally and with external stakeholders

**Community** – A supportive, diverse, inclusive and engaged environment

**Continued Reach for Excellence** – An ever-present aspiration to achieve excellence in all aspects of its mission and vision

## **LONG TERM VISION**

CBS's unifying long term vision is to be a globally-recognized hub for biological research and scholarship with a unique focus on the student experience.

## STRATEGIC PRIORITIES

Over the coming 5 years, CBS will focus on 4 strategic priorities to move closer to its long term vision. These are:

- #1 Strive for excellence in biology research, maximizing parallel opportunities for authentic student participation in the process of knowledge generation and translation
- #2 Drive innovation in teaching in the field of biology, identifying and implementing valid and state-of-the-art methods for training budding biologists and scientifically literate citizens
- #3 Produce graduates that are in high demand in academic, government and private sectors, for their breadth of knowledge and skills, but also for their leadership, their broad perspectives, their workplace sensibilities and their business acumen
- #4 Strengthen a sense of common identity and life-long membership across the entire CBS enterprise, striving in unison for high quality research and an optimal learning and training experience for the CBS student



*Fallen trees in deciduous forest*

# Inspired Research & Scholarship in Biology



Strive for excellence in biology research



Drive innovation in teaching in the field of biology



Produce graduates that are in high demand in academic, government and private sectors



Strengthen a sense of common identity and life-long membership across the entire CBS enterprise

## MEASURING IMPACT

CBS will collect specific metrics and evaluate its impact in each of its strategic priority areas at the end of its 5 year strategic planning cycle.

### Strategic Priority

#1

#### STRIVE FOR EXCELLENCE IN BIOLOGY RESEARCH

*Measured by:*

- Amount of external research funding secured by CBS members compared to benchmark institutions
- Number of high-profile external research mobilization events in which CBS members have participated (e.g. international conferences and workshops, invitation-based policy committees, invitation-based speaking events etc.)
- Number of awards or prizes that recognize excellence in research (Ontario's Early Researcher Award, New Scholars in the Royal Society of Canada, Discovery Accelerator Grants, Fellows of the Royal Society of Canada, etc.)
- Number of occasions where CBS faculty have served as journal editors or members of grant selection panels
- Number of occasions where CBS research is promoted by a credible external party (e.g. external media coverage)
- Normalized Citation Impact<sup>2</sup> for CBS

### Strategic Priority

#2

#### DRIVE INNOVATION IN TEACHING IN THE FIELD OF BIOLOGY

*Measured by:*

- Quantity and citation impact of publications pertaining to the scholarship of teaching and learning (SoTL) in the field of biology
- Number of faculty and staff actively engaged in SoTL
- Number of grants awarded for research in training, teaching and learning practices
- Number of awards or prizes for innovation and excellence in teaching and training
- Number of new High Impact Educational Practices integrated into existing programs
- Graduate and undergraduate perception of CBS's teaching innovation and effectiveness<sup>3</sup>





## Strategic Priority

#3

### **PRODUCE GRADUATES THAT ARE IN HIGH DEMAND IN ACADEMIC, GOVERNMENT AND PRIVATE SECTORS**

*Measured by:*

- Percentage of CBS graduates that move onto high quality jobs (leadership track positions related to the field of biology) within specific timeframes after graduation<sup>3</sup>
- Satisfaction rate of CBS graduates and employers with workplace skills developed during the course of undergraduate and graduate programs<sup>3</sup>

## Strategic Priority

#4

### **STRENGTHEN A SENSE OF COMMON IDENTITY AND LIFE-LONG MEMBERSHIP ACROSS THE ENTIRE CBS ENTERPRISE**

*Measured by:*

- Percentage of CBS members that feel connected to the college's distinct identity and its long term vision in their daily work<sup>3</sup>
- Percentage of CBS members that feel they "belong" and are a valued member of the bigger college community<sup>3</sup>
- Number of former faculty, staff, and students that feel (or are) engaged in the broad college community<sup>3</sup>

<sup>2</sup> Compares the performance of CBS to the average performance of the world by measuring the quotient of the observed citation rate for CBS and an expected citation rate for CBS

<sup>3</sup> From 5-year Survey

## GOALS AND PERFORMANCE

Specific goals have been outlined to support CBS's work in each of its strategic priority areas. CBS will collect metrics to evaluate its performance in accomplishing these goals on an annual basis.

### Strategic Priority 1

#### STRIVE FOR EXCELLENCE IN BIOLOGY RESEARCH

##### GOALS

##### PERFORMANCE METRICS

**Increase the total amount of external funding brought into CBS and diversify the sources for such funding**

- ▶ Percentage of faculty holding Tri-Council funding
- ▶ Amount of Tri-Council funding brought into CBS
- ▶ Amount of non-Tri-Council funding brought into CBS
- ▶ Number of distinct funding organizations to which CBS faculty apply
- ▶ Number of distinct funding organizations providing support to CBS research

**Increase CBS's investment in its research enterprise**

- ▶ Number of research projects receiving funding from CBS
- ▶ Amount of internal funding allocated to faculty research projects
- ▶ Amount of internal funding for core research facilities
- ▶ Amount of internal funding for other centralized resources and services to support research projects

**Increase the number of high-quality graduate students within CBS departments**

- ▶ Number of graduate students entering the college every year (upon meeting defined entry standards which are designed to capture high-performing students)
- ▶ Percentage of students that publish during their graduate studies
- ▶ Amount of research-specific funding awarded to CBS graduates
- ▶ Average citation impact of publications that include CBS graduate students

**Enhance undergraduate student participation in research activities**

- ▶ Percentage of CBS publications that include undergraduate student authors
- ▶ Amount of research-specific funding awarded to CBS undergraduates
- ▶ Number of undergraduate students partaking in authentic research with faculty and staff

**Improve research collaboration within CBS and foster a culture of mutual research success**

- ▶ Percentage of publications that include two or more CBS faculty coauthors
- ▶ Percentage of publications that include CBS staff (non-faculty employees)
- ▶ Number of funded research programs that include two or more CBS authors

## Strategic Priority 2

### DRIVE INNOVATION IN TEACHING IN THE FIELD OF BIOLOGY

#### GOALS

**Amplify the work of the CBS Office of Educational Scholarship and Practice (COESP)**

**Enhance professional development related to teaching and training among CBS staff and faculty**

**Increase the amount of collaborative and research-connected teaching**

#### PERFORMANCE METRICS

- ▶ Number of CBS members participating in the COESP
- ▶ Number of events (including guest speakers and workshops) pertaining to the teaching practice and scholarship of biology
- ▶ Amount of educational practice and research enhancement funds attained or distributed
- ▶ Number of high impact educational modifications made to undergraduate and graduate curricula
- ▶ Number of teaching and training professional development opportunities offered through the college
- ▶ Percentage of staff and faculty engaging with professional development initiatives related to teaching and training
- ▶ Establishment of a predictable and systematic teaching plan to coordinate teaching efforts between faculty and non-faculty (e.g. post-doctoral fellows, staff and lecturers)
- ▶ Number of teaching opportunities available to non-faculty
- ▶ Number of undergraduate courses with an integrated research or “hands-on” component

*Leaf cells under magnification*



### Strategic Priority 3

## PRODUCE GRADUATES THAT ARE IN HIGH DEMAND IN ACADEMIC, GOVERNMENT AND PRIVATE SECTORS

#### GOALS

#### PERFORMANCE METRICS

Enhance program-based professional development for CBS students

- ▶ Percentage of courses that include dedicated professional skill development activities

Increase opportunities for non-program-based professional development and career planning

- ▶ Number of non-program-based opportunities offered by the college focused on professional skill development
- ▶ Number of students and staff participating in non-program-based, college-run professional development activities
- ▶ Number of professional certificate programs promoted by the college

Increase the number of experiential learning opportunities offered through CBS

- ▶ Number of co-op opportunities available to students and percentage of students being placed
- ▶ Number of non-co-op experiential learning opportunities (e.g. field-based projects) available to students and percentage of students participating
- ▶ Number of students and post-doctoral fellows involved in teaching activities (e.g. lecturing, running of tutorials, etc.)

## Strategic Priority 4

### STRENGTHEN A SENSE OF COMMON IDENTITY AND LIFE-LONG MEMBERSHIP ACROSS THE ENTIRE CBS ENTERPRISE

#### GOALS

#### PERFORMANCE METRICS

**Develop a college-wide internal communication system**

- ▶ Establishment of one or more appropriate college-level communication streams (e.g. newsletter, social media platform etc.)

**Increase the number of opportunities for collegial interactions across the entire CBS enterprise**

- ▶ Number of CBS-wide community events and number of members attending

**Enhance and recognize faculty and staff service at the college level**

- ▶ Number of inter-departmental service opportunities made available to CBS members
- ▶ Number of faculty, staff and students participating in voluntary service to CBS

**Enhance community support for all CBS members (staff, students as well as non-faculty and faculty academics)**

- ▶ Number of community support programs, initiatives or forums struck to bring to light the voice of CBS members and address their needs
- ▶ Number of promotions and leadership positions made for non-faculty and staff

**Increase the number of former CBS members (alumni, retired faculty and staff) who are engaged with the college**

- ▶ Number of former CBS members attending college-run events
- ▶ Number of former CBS members who volunteer their time to college-based activities
- ▶ Number of former CBS members who financially support the college through donation

**Enhance employment equity for potential new members**

- ▶ Number of employees in equity seeking groups relative to targets set out by the college

## **EVALUATION**

In order to measure its progress against its goals and to achieve the long term impact it desires, the college will implement a thorough evaluation system. As part of this system, impact and performance metrics will be organically collected by CBS and departmental administration. Where needed, new tools (e.g. databases) and evaluation practices and workflows will be developed to support data collection.

Performance metrics will be pooled and tallied on an annual basis to gauge CBS's progress against its goals. Impact metrics will be pooled and tallied at the end of the 5 year strategic planning cycle. Some impact metrics will be derived from a survey that will be conducted every 5 years (these are denoted in the "measuring impact" section).

## **COMMUNICATION STRATEGY**

In addition to the goals that are listed above, CBS will also develop an external communication strategy to advance its strategic priorities. This strategy will delineate stakeholders, content, success thresholds, timepoints and mechanisms for communicating CBS's accomplishment in each of its strategic priority areas (for example in advancing research and innovations in teaching and in enhancing its graduates' career trajectories). As part of its 5 year survey, CBS will measure the effectiveness of this communication strategy by gauging its stakeholders' perception of the college in particular as related to its strategic priorities and long term vision.

# Strategic Planning Committee

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