

2021-2026 Strategic Plan

**Department of Chemistry and Chemical Biology
Schafer School of Science and Engineering
Stevens Institute of Technology**

May 2021

Message from Chair

The Department of Chemistry and Chemical Biology (CCB) at Stevens is known for its legacy of fostering and nurturing groundbreaking, world-class innovation. Dr. Irving Langmuir, a former Stevens Chemistry faculty member, won the 1932 Nobel Prize in Chemistry for his discoveries in surface chemistry. CCB was among the first to offer an undergraduate Chemical Biology degree in 1978 and today remains at the forefront of chemical biology with our internationally recognized faculty in the healthcare domain as well as with professionally diverse experiences in academia and industry.

As the world around us continues to evolve, we are presented with new challenges to address and new opportunities to explore. Especially, we know that Covid-19 is fundamentally reshaping the landscape of higher education. At the same time, this pandemic highlights in the most compelling way how important the mission of CCB is to our society and provides us with a historic occasion to reflect our past and project the future as an academic unit.

I extend my gratitude to the CCB faculty members who worked tirelessly together to develop this Strategic Plan through candid discussion, exhilarating brainstorming, benchmarking, and consensus seeking. This planning process was inclusive, receiving feedback from our students, administrators, alumni, and advisors. With the broader CCB community's support, I am strongly committed to leading and empowering the CCB faculty and working with the administration to secure human and financial resources for the successful implementation of our plan. As Stevens continues to be a resource-lean institution despite its recent growth, we must be flexible, agile, focused, and selective in pursuit of our strategic initiatives in the most meaningful and impactful way.

Woo Lee
Professor and Chair

Table of Contents

• Introduction	3
• Vision, Mission, and Values	3
• Strategic Goal and Initiatives for Research	4
○ Faculty Recruitment	
○ Named Computational Chemistry & Biology Lab	
○ CCB Research Day	
• Strategic Goal and initiatives for Undergraduate Education	7
○ Undergraduate Curricular Innovation	
○ Multifunctional Learning & Research Space	
○ Campus-Wide Prehealth	
• Strategic Goal and initiatives for Graduate Education	10
○ Ph.D. Student Recruitment and Training	
○ Master's Curricular Innovation	
○ Fully Online Master's Program in Chemical Biology	
• Strategic Goal and Initiative for Infrastructure	12
○ Modernizing and Maintaining Critical Major Instruments	
• Strategic Goal for Governance, Culture, and Reputation Building	13
○ Governance and Advisory Structure	
○ Inclusivity	
○ Communication	
• Appendix A – Process of Strategic Planning	14
• Appendix B – Faculty Members and Committees	15

Introduction

In 2013, Stevens unveiled its 10-year strategic plan for the entire university, “The Future. Ours To Create.” As Stevens’ flagship school, the Schafer School of Engineering and Science (SES) also aligned itself with the university’s overall vision by developing and publishing the 2018-2023 Strategic Plan, “Power the Future, Empower the Mind.” The CCB Strategic Plan is developed in accordance with the vision and goals outlined in these Stevens and SES plans. As part of our planning process, the 2018 CCB Self-Study report, the 2019 External CCB Review Committee report, and the 2014 Biology Program proposal were used as main references to assess our current strengths and weaknesses. Also, we adopted major recommendations from the 2019 SES PhD Programs and 2020 SES Masters Programs Task Force Committees. Under this overall institutional framework, the CCB Strategic Plan outlines major goals and strategic initiatives for enhancing the experience of our students, strengthening research and infrastructure, and increasing our reputation as an academic community. As we move beyond the planning phase, our next steps must include the development and securing of the needed resources. We plan to assess our progress through annual meetings with the newly established CCB advisory boards of undergraduate students, graduate students, and external advisors.

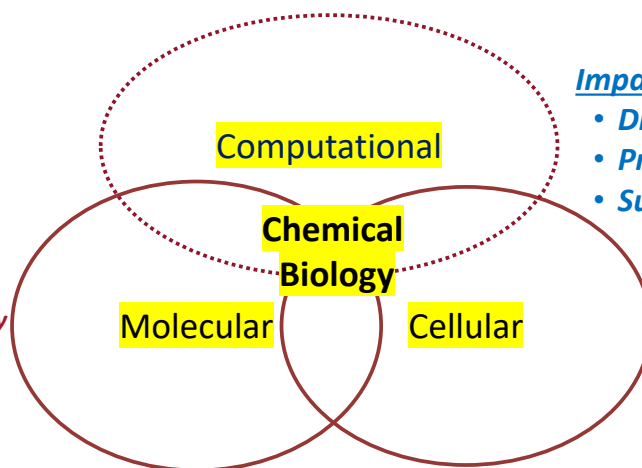
Vision (for 2026 and Beyond)

The CCB Department will be a community of researchers with molecular, cellular, and computational minds, dedicated to educating the next generation of science leaders and innovators and exploring transformative scientific ideas for global societal impact.

Stevens Foundational

Research Pillars

- **Biomedical Engineering, Healthcare, Life Sciences**
- **Data Science and Information Systems**
- **Artificial Intelligence, Machine Learning, Cybersecurity**
- **Resilience & Sustainability**
- *Financial Systems & Technologies*
- *Complex Systems and Networks*



Impact Areas

- **Drug Discovery**
- **Precision Medicine**
- **Sustainability**

Mission

The CCB Department embodies a sense of purpose to:

- Create new knowledge with focus on advancing the field of chemical biology as our historic, unique, and synergistic intellectual frontier and anchoring the growth of interdisciplinary biomedical research at Stevens.

- Educate and empower tomorrow’s leaders and innovators with broad foundation in chemical and biological sciences, critical hands-on laboratory skills, integrative research spine experience, and global societal perspectives.
- Inspire students in introductory chemistry and biology courses using creative and evidence-based approaches, including active and problem-based learning, in a real world and global context.
- Expose students to career opportunities, as innovators, at the intersection between science, engineering, and medicine through research and clinical experiences, industrial internships, and study abroad programs.

Values

The ethos of the CCB Department is underscored in the following core values:

- Excellence of Students and Faculty
- Student Centricity
- Academic Integrity
- Interdisciplinary Collaboration
- Inclusiveness and Diversity

Strategic Goal for Research

Build a strong research community of molecular, cellular, and computational minds, working synergistically to explore transformative scientific ideas for cutting-edge research in chemical and life sciences and for broad impact in drug discovery, precision medicine, and sustainability.

Rationale: Chemistry is referred to as the “central science” because it provides a framework to connect the physical sciences with the life sciences and applied sciences such as medicine and engineering. One of the foundational research pillars of this “central science” focuses on the study of the structure, synthesis, and function of molecules, ranging from small molecules to peptides, polymers, and biomolecules (“**molecular mind**”). Chemical biology, as our legacy research area, aims to provide mechanistic insights into biological problems from the perspective of molecular synthesis, analysis, and control (“**cellular mind**”). At the same time, computational chemistry and biology have significantly advanced to play increasingly important roles in studying molecular and cellular systems (“**computational mind**”). Over the next five years, we plan to strengthen CCB’s computational research cluster as the integral and enabling element of building the community of molecular, cellular, and computational minds.

Molecular Research Focus: Current research includes the design and development of novel anticancer and antibacterial compounds, bioactive peptides, molecular probes to better understand and modulate cellular functions, discovery of novel molecular building blocks and chemical reactions to expand the “chemical space” of bioactive compounds and functional

macromolecules. Over the next decade, the research endeavors within this cluster can evolve and grow by aiming to develop novel molecules and concepts to:

- Understand or modulate disease-relevant cellular and biological systems at the molecular level and
- Generate new functional macromolecules having wide applications in nanotechnology, diagnosis, electronic and photonic devices, and drug formulation.

Cellular Research Focus: Current research includes the integration of chemical and biological processes to provide new knowledge about molecular and cellular aspects of human disease for better design of treatment approaches. The particular focus of our laboratories is on studying cancer, by combining tissue engineering of human and mouse organoids with quantitative imaging, murine models of cancer, and molecular analysis of gene and protein function. Our research addresses:

- Critical questions about mechanisms of cancer initiation, progression, and therapy resistance and
- Transformative avenues of evaluating new drugs and patient-specific treatment options, including immunotherapy, to optimize the use of very costly and potentially toxic interventions and reduce treatment failure.

To this end, we employ in vivo mouse models and ex vivo approaches using organoids from various tissues and cancers. In the future, we will expand our studies into:

- Patient-derived organoids to further the advances towards patient tailored therapies in the areas of cancer, inflammatory diseases, infectious diseases and
- Regenerative medicine through the recruitment of new faculty and in close collaboration of regional medical schools and hospitals.

Computational Research Focus: Current research includes:

- Development and employment of computational methods for high accuracy predictions and refinement of various molecular structures and properties for practical applications in catalysis and of clinical interest and
- Using cheminformatics and bioinformatics to accelerate the processes for discovering novel therapeutics.

These computational endeavors have not only offered critical results to understand existing experimental data, but also revealed previously unknown information to facilitate new experimental studies. The next phase of growth for this research cluster will include:

- Applying unprecedented computational results to understand crucial molecular interactions in biological processes, drug discovery, and sustainable chemistry and
- Generating new insights into compelling chemical and biological problems by developing and using newly emerging techniques in data science, machine learning, and artificial intelligence.

Strategic Initiative – Faculty Recruitment

Make a coherent effort to recruit three Assistant Professors.

New tenure-track faculty members will be recruited to:

- Provide new insights into compelling chemical and biological problems by developing and using newly emerging techniques in data science, machine learning, and artificial intelligence,
- Bring in collaborative opportunities with the current tenure stream faculty for transformative impact in the fields of drug discovery, precision medicine, and sustainability, and
- Educate our students using state of the art computational tools and approaches and cultivate the computational mindset of our students.

Our expectation is to fill these positions over the next several years in discussion with the Stevens Administration and in collaboration with the Stevens Institute for Artificial Intelligence.

Strategic Initiative – Named Computational Chemistry & Biology Lab

Explore the possibility of establishing “Named Computational Chemistry & Biology Lab” through a major gift.

In conjunction with new faculty hiring, we envision this lab to serve as a collaboration hub to collectively study and solve complex chemical and biological problems of common interests in the era of data-driven research. In discussion with the administration over the next few years, we look forward to developing a major proposal that details the planning and execution of this strategic initiative. As a first small step towards this ambitious initiative, we plan to pilot by purchasing several computers and equipping them with software such as Schrödinger, Gaussian, VASP, Spartan, Spotfire, Chemdraw, Scifinder, Hyperchem, Matlab, and Mathematica for use in various research and educational activities in Fall 2021.

Strategic Initiative – CCB Research Day

Establish “CCB Research Day” in conjunction with Stevens Expo Day.

We will annually assemble as a community of researchers with molecular, cellular, and computational minds and highlight our research activities and accomplishments. As part of the annual Stevens Innovation Expo, it will provide a formal venue to showcase:

- Undergraduate senior research projects and
- Research projects of graduating masters and doctoral students.

We plan to invite the local members of the American Chemistry Society (ACS) with focus on our alumni, science teachers in the region, and students from other universities. We are piloting this initiative for undergraduate senior research projects in Spring 2021.

Strategic Goal for Undergraduate Education

Innovate and strengthen broad-based education and interdisciplinary training to enrich the learning experiences and global perspectives of our chemistry, chemical biology, and biology majors as lifelong learners and future leaders and innovators.

Strategic Initiative – Undergraduate Curricular Innovation

Innovate undergraduate curricula for distinguishing features:

- ***First year-to-senior year research spine*** experience as the defining foundation of chemical and biological science programs at Stevens,
- ***Technology emphasis*** as Stevens' science programs, and
- ***Contemporary societal context*** (e.g., pandemic, antibiotic resistance, cancer, and sustainability).

We will need to:

- Improve the marketing of our degree programs,
- Incorporate clear and concise degree-associated career paths,
- Develop and disseminate videos for student success stories,
- Increase alumni engagement with matriculated students, and
- Articulate the career value of a Stevens undergraduate degree combined with graduate certificates.

We will continue to inspire students in all chemistry and biology courses through evidence-based teaching approaches including **active learning, problem-based learning, team-based learning**, and integration of global real-world issues and case studies. We will ensure students are prepared for graduate programs, professional health programs and careers in a variety of industries. To facilitate and support these activities, we will need to develop proposals to National Science Foundation, National Institutes of Health, and private foundations as well as requests for private gifts. We plan to fully implement the research spine experience for all CCB students, starting with the first year class in 2023.

Strategic Initiative – Multifunctional Learning & Research Space

Transform traditional teaching labs into multifunctional learning and research spaces.

We envision the development of multifunctional spaces to learn and use chemistry and biology. Specifically, we envision the transformation of Organic Chemistry Teaching Lab (McLean 219) and Chemical Biology Teaching Lab (McLean 323) for multifunctional use and as our showcase labs. We will modernize activities for organic chemistry and biology lab courses. For example, BIO381 is selected by the School of Engineering and Science and the Division of Information

Technology as one of two courses on campus for **piloting the use of virtual learning (VR)** to enhance student learning in Fall 2021. Specifically, we will need to update and equip the labs to establish and house **Drug Discovery Space** in McLean 219 and **Gene Editing Space** in Mclean 323.

Gene Editing Space will make the CRISPR-Cas genetic editing technology available for our students to learn and use toward exploring the myriad of biomedical and bioengineering problems. This novel technology (2020 Nobel Prize in Chemistry) has advanced to a stage where novice scientists can use it to explore its application for a wide variety of biomedical and biological applications. Furthermore, Gene Editing Space will incorporate the computational, molecular and cellular aspects of CRISPR-Cas technology in alignment with the departmental vision. Gene Editing Space will be developed to provide:

- **Modern hands-on biology lab activities** in BIO281, BIO381, BIO382, and BIO484, including the use of **VR**, to enhance student learning,
- Contemporary research experience in Chemical Biology that is inclusive and accessible from students' first year to their capstone senior research projects (i.e., "**Research Spine**"), and
- Opportunities to explore a **novel gene editing technology** that is currently and significantly impacting many critical biotechnology applications.

Drug Discovery Space will be based on recent success of two CCB nontenure stream (NTS) faculty members (Dr. Sesha Alluri and Dr. Sunil Paliwal). Despite high teaching loads and without their own research labs, they have advised seniors in CH498/CH499 Senior Research for drug discovery with significant impact in student learning and career outcomes. Drug Discovery Space will be developed to provide:

- **Modern hands-on organic chemistry lab activities** in CH245 Organic Chemistry Lab I (150 students in 6 sections during fall) and CH246 Organic Chemistry Lab II (50 students in 2 sections during spring).
- Contemporary research experience in drug discovery that is inclusive and accessible from students' first year to their capstone senior research projects (i.e., "**Research Spine**"), and
- Opportunities to explore **high-throughput screening technology** that is highly valued as a critical skillset in the pharmaceutical and biotechnology industries.

This initiative will:

- Provide a coordinated lab space for the research engagement of the CCB NTS faculty, critically needed for CCB to provide research spine experience to CCB undergraduate students,
- Enhance our undergraduate curricula, resulting in the recruitment of high-quality students, enhanced student learning experience, and increased overall enrollment,
- Provide a realistic chance for undergraduates to publish their research, which is one of five major criteria for the national ranking of pre-med programs, and

- Transformative opportunities for the professional growth of the NTS faculty through collaborative projects, publications, and educational research grants.

In discussion with the administration, we look forward to developing detailed proposals to implement this initiative over the next few years.

Strategic Initiative – Campus-Wide Prehealth

Anchor the development, establishment, and maintenance of the Stevens Campus-Wide Prehealth Program.

We plan to modernize, invigorate, and formalize prehealth program activities and provide more and varied experiences including clinical and research. We envision that the invigorated prehealth program:

- Would reside in CCB as the central academic unit of many prehealth prerequisite courses and
- Be campus wide targeting students interested in healthcare careers across all majors including chemical biology, biology, biomedical engineering, mechanical engineering, chemical engineering, business technology, quantitative finance, science technology and communications, music technology and philosophy.

This program would start with:

- Recruiting high-quality students via summer precollege programs,
- Establishing summer bridge programs for students enrolling their first year,
- Identifying and providing multi-layered support to students interested in prehealth from first year up to the senior year, and
- Preparing students for success in applying and enrolling in health professional programs.

Through the implementation of this initiative, we anticipate that more students at Stevens in the future will pursue health professional programs upon graduation and are admitted and enrolled in top tier schools. Health programs include:

- Medical Doctor (MD)
- Doctor of Osteopathic Medicine (DO)
- Dentistry
- Pharmacy
- Physical Therapy
- Optometry
- Physician’s Assistant
- Veterinarian
- Chiropractic

During Spring 2021, we have drafted a white paper, “The Future of Stevens Prehealth Program,” for the initial planning and execution of this strategic initiative along with our recommendations to the administration.

Strategic Goal for Graduate Education

Innovate and strengthen broad-based education and interdisciplinary training to enrich the learning experiences and global perspectives of our chemistry and chemical biology master's and doctoral graduates as lifelong learners and future leaders and innovators.

Strategic Initiative – Ph.D. Student Recruitment and Training

Strengthen the Ph.D. program by improving recruitment practice, qualification process, and competitive research training.

We seek to attract high-quality students to our Ph.D. program and provide them with resources and mentoring to evolve as productive and highly skilled scientists. We recognize the PhD graduates from CCB department as one of our best brand-ambassadors to showcase the rigor and depth of intellectual and practical training provided by our PhD program. Specifically, the Provost Fellowships will be used to:

- Help tenure-track faculty to attract outstanding students and build strong research groups.
- Enhance student diversity by focusing on student groups and countries that are less represented in Stevens.

We aim to use teaching assistant resources more effectively to enhance the quality of our recruits, promote grant success, and build collaboration. The Ph.D. qualification process is being revised by shifting the emphasis from theoretical and subject-based tests to an evaluation of the student's skills in interpreting and analyzing current scientific literature and proposing and defending a research hypothesis. We will need to provide competitive research training by:

- Fostering collaboration at the intersection between molecular, cellular, and computational research cluster and
- Building bridges for collaboration with other departments and outside Stevens.

Strategic Initiative – Master's Curricular Innovation

Innovate graduate curricula to equip master's students with tailored foundational and interdisciplinary knowledge and skills for professional development and career success through master's programs in chemistry and chemical biology designed with core courses for skill building and electives in focused certificate areas.

In agreement with the recent recommendations from the SES Master's Program Task Force, the effort has already undertaken to:

- Review and revise the core course requirements and

- Assess the feasibility of developing graduate certificates that capture regional, institutional, and CCB strengths, e.g., analytical chemistry, drug discovery, computational chemistry & biology, and data science chemical biology.

We are using the following criteria to select graduate certificate programs to be developed and marketed:

- Competitiveness measured by projected enrollments,
- Faculty ownership and presence (including adjuncts), and
- Synergy with the Accelerated Master's program for undergraduate students.

We will need to facilitate students' career placement and provide them with more experiential learning opportunities both on campus and through domestic and international partnerships.

Strategic Initiative – Fully Online Master's Program in Chemical Biology

Explore the feasibility of offering the fully online master's program in chemical biology.

This high-risk, high-gain initiative is built on several features that we can use to differentiate the program:

- Our **historical foundation** as among the first to offer the undergraduate Chemical Biology degree in 1978 and currently only a few schools offer fully online masters programs in Chemical Biology,
- **Renowned and diverse faculty in the healthcare domain** complemented by new faculty members with focus on computational chemical biology,
- **"Master teachers"** who can deliver high-quality online courses using active learning tools, and
- **Cutting-edge curriculum suitable for online delivery** with focus on transformative use of computational tools including data science and artificial intelligence and case studies introduced by industry experts for regional networking opportunities.

We will need to conduct a **formal market assessment** after the program description is drafted prior to committing significant resources. We will use the following criteria for our decision-making process:

- Regional demand for proposed degree program based on formal market assessment,
- Market-differentiating features to capture significant portion of the regional demand, and
- Long-term prospects for building the quality of faculty and academic reputation.

If successful, this high-risk/high-gain initiative may help us secure our graduate enrollment base and therefore underwrite our future growth in the post-pandemic era.

Strategic Goal for Infrastructure

Support the research and teaching endeavors of the CCB Department through maintaining and modernizing critical and balanced experimental capabilities.

The research and educational endeavors are currently supported by the following facilities:

- Core facilities which include confocal microscopy, nuclear magnetic resonance (NMR), and mass spectrometry,
- Research labs which anchor individual faculty research and graduate student training, and
- Teaching labs which are used for in-depth lab skills training of CCB undergraduate and graduate students and to provide introductory chemistry and biology lab experiences to over 1,000 undergraduate students every year.

These facilities occupy the total space of about 20,500 square feet in McLean Building.

During the **inaugural meeting of the CCB Graduate Students Advisory Board** held on February 17, 2021, we heard the **thoughtful and collective voice of our graduate students about the inadequate state of our teaching and research facilities at several levels**. Since Covid-19 started one year ago, some teaching labs have not been kept up although equipment in these labs have been accessed and used by graduate students for research. We are currently working to resume the upkeep of these teaching labs under the supervision of responsible faculty members and TAs assigned to the courses supported by these labs. Also, we are in the process of identifying whether each piece of equipment in our teaching labs is working, broken/repairable, broken/replaced, or to be disposed of. By the end of Spring 2020, we plan to communicate with graduate students with the list of all CCB equipment available for research and specific policies associated with access, training, and use. Also, based on the list, we plan to **control lab access using ID cards**, especially to teaching and core facilities as well as access to computers that control key instruments. After the above steps are completed, we plan to provide the administration with **our recommendations for critical equipment repairs and replacements**.

Strategic Initiative – Modernizing and Maintaining Critical Major Instruments

Modernize and maintain critical major instruments that support both education and research.

NMR is a fundamental tool for chemical and chemical biology research. NMR has multidisciplinary applications spanning organic/medicinal/inorganic chemistry, polymer/materials chemistry, chemical biology, biochemistry, and biophysics. NMR is also important for teaching organic chemistry courses (enrollment > 120 students). However, although required for the ACS accreditation, we are currently unable to use NMR for undergraduate education without compromising our research capabilities due to the outdated instrument.

The current instrument (400 MHz) was purchased more than a decade ago and it is obsolete for many modern applications. The research faculty often have to go to other local universities for advanced applications. Our instrument needs very careful handling by experienced graduate students to keep it in a condition that is suitable for research applications and to avoid expensive damage. Furthermore, the students applying to our M.S. and Ph.D. program often have more modern NMR instruments in their undergraduate institutes than at Stevens. Given our very limited NMR instrumentation resources, it becomes very difficult to: (1) recruit and retain high quality graduate students at Stevens and (2) compete with well-established chemistry departments for major research grants. **The department needs a modern NMR instrument** (at least 500 MHz) to address the above concerns. Having a second and modern NMR instrument would also allow us to adapt our current instrument for undergraduate education.

We will need to explore the possibility of **consolidating analytical capabilities** in the Center for Mass Spectrometry (McLean 409 and 408) and the Analytical Chemistry Teaching Lab (McLean 423-429) **as an SES User Center** with focus on supporting lab courses and campus-wide user service. The change will help increase the user base necessary to rationalize human and financial resources required to maintain our analytical instruments.

We have **a new confocal laser scanning microscope** which supports many research groups. The upkeep of this instrument will be augmented through a service contract starting Spring 2021. In conjunction with this initiative, we will need to recruit and develop **a Ph.D. level bench scientist** with responsibilities to:

- **Maintain** our facilities and equipment,
- **Train** users of major instruments, and
- **Administer** shared use for our equipment campus wide.

CCB lost two full-time employees who previously carried out some of these responsibilities. Considering the ACS requirements for providing intensive lab and research experiences to our students, it is imperative that we restore human resources to manage and maintain our facilities and equipment.

Strategic Goal for Governance, Culture, and Reputation Building

Foster a culture of “excellence in all we do” that is further enhanced by strong and transparent governance, strategic partnerships and engagement, and effective communication.

Strategic Initiative – Governance and Advisory Structure

Structure the governance of CCB through standing committees.

During the current academic year, we established the following standing committees:

- Undergraduate Education
- Graduate Education
- Research & Infrastructure
- Promotion & Tenure.

We also plan to establish an **inclusive culture** by providing equal voting privileges for all full-time faculty members on academic matters and maintain an open and accepting dialogue. We will need to cultivate CCB staff to be accountable, responsive, and effective and use information technology to modernize office functions and support faculty governance. During this academic year, we also formed the **Undergraduate Students Advisory Board**, the **Graduate Students Advisory Board**, and the **External Advisory Board** to obtain periodic feedback, assess and address all the stakeholder's input.

Strategic Initiative – Inclusivity

Increase diversity in future faculty hires through various recruiting strategies in partnership with the Stevens Advance program.

We will also need to promote inclusivity and diversity in the undergraduate and graduate classroom through both existing and new strategies. For instance, we can support faculty in providing an inclusive classroom by introduction to equity in teamwork, discussion of workforce needs from those in industry, and cross-course meetings to share implementation strategies and challenges.

Strategic Initiative – Communication

Broadly publicize major faculty and student accomplishments to raise the CCB profile and reputation through Annual CCB Newsletters.

Note that we published [the inaugural CCB Annual Newsletter](#) in January 2021. We plan to reward major faculty successes in both teaching and research, promote external recognition of faculty, and highlight student learning experiences. We plan to build strategic partnerships with prestigious and local institutions and engage academic leadership counterparts of other universities. We will need to strengthen our connection to the ACS NY Section and faculty advising of ACS Student Chapter. We created [Make a Gift](#) as a means of cultivating donors for CCB-specific initiatives such as research spine implementation.

Appendix A – Process of Strategic Planning

Fall 2020

- Graduate Education Committee
 - Masters Program Cores
 - Graduate Certificates
 - Ph.D. Qualification

Winter Break 2020-2021

- Undergraduate Education Committee
 - The future of Stevens Prehealth Program
 - Multifunctional Learning and Research Space
 - Research Spine
- Research & Infrastructure Committee
 - Core Facilities and Equipment in Research and Teaching labs
 - Ph.D. Student Recruitment and Support
 - Future Research Direction

Spring 2021

- Discussion for shared vision and faculty ownership
- Review with the Undergraduate Students Advisory Board, the Graduate Students Advisory Board, the External Advisory Board, and the Stevens Administration

APPENDIX B – Faculty Committees and Members

Undergraduate Education

- Patricia Muisener (Chair)
- Kenny Wong (Biology Program)
- Sesa Alluri
- Paola DiMarzio
- Faith Kim
- Miguel Mendez Polanco
- Ansu Perekatt
- Nuran Kumbaraci
- Anju Sharma
- Brunella Taddeo
- Yong Zhang

Graduate Education

- Patricia Muisener (Chair)
- Kenny Wong (Biology Program)
- Abhishek Sharma (PhD Program and Graduate Student Admission)
- James Liang (Bioengineering)
- Athula Attygalle
- Marcin Iwanicki
- Sunil Paliwal
- Anju Sharma
- William Windsor (Guest)

Research & Infrastructure

- Woo Lee (Chair)
- Sesa Alluri
- Athula Attygalle
- Marcin Iwanicki
- James Liang
- Sunil Paliwal
- Ansu Perekatt
- Abhishek Sharma
- Yong Zhang
- William Windsor (Guest)

Promotion & Tenure

- Woo Lee (Chair)
- Yong Zhang (Vice Chair)
- James Liang
- Nuran Kumbaraci