VP&S STRATEGIC PLANNING

PHASE II OUTCOMES FROM WORKING GROUPS

COLUMBIA

Vagelos College of
Physicians and Surgeons

WE ASPIRE TO
TRANSFORM HUMAN HEALTH
BY DRIVING DISCOVERY,
ADVANCING CARE, AND
EDUCATING LEADERS

WE VALUE
EXCELLENCE, RESPECT AND EQUITY

Columbia | VAGELOS COLLEGE OF PHYSICIANS AND SURGEONS

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Foster greater interaction and team-building (e.g., shared space, communications)

CLINICAL MISSION

We provide the best, equitable, and compassionate care to our community and patients.

GOAL A QUALITY OF CARE

Advance leadership in quality of care, including clinical excellence, patient-centeredness, and equity

GOAL B ACCESS TO CARE

Improve patient access

GOAL C AMBULATORY PRACTICE REDESIGN

Redesign ambulatory practices to advance patient and clinician experience, including integration of clinical research

CLINICAL

GOAL A QUALITY OF CARE

We will advance leadership in quality of care, including clinical excellence, patient-centeredness, and equity. VP&S's extraordinary care teams and, in collaboration with NYP, will strive to provide a uniformly positive experience for all patients regardless of payor, language, or care needs, with sufficient resources to support patient care, patient-friendly facilities, and payor-agnostic care sites.

- **Strategy A1** – We will develop and implement the future of quality of care at VP&S by integrating leadership, resources, and goals across VP&S and NYP.

- **Strategy A2** – We will develop clinical pathways by disease based on best evidence that integrates relevant specialties and spans the spectrum of care. The pathways will be implemented in Epic and provide benchmarks for expected care.

- **Strategy A3** – We will optimize existing technologies and resources to improve quality of care.

FOR MORE DETAIL ON THE WORKING GROUP'S SUGGESTIONS, **CLICK THE CORRESPONDING STRATEGY** TO JUMP TO THE APPENDIX.

CLINICAL

GOAL B ACCESS TO CARE

We will increase patient access to primary and specialty care at VP&S, both in the inpatient and outpatient setting.

- **Strategy B1** – We will increase digital presence and use of technology to improve patient access.

- **Strategy B2** – We will increase capacity by increasing our provider count and clinical time and using technological tools to inform the best use of our spaces. We will use our providers to the top of their license.

- **Strategy B3** - We will maximize, in collaboration with NYP, access and ease for the transfer of patients from external and affiliated institutions.

- **Strategy B4** – We will optimize the management of both internal and external referrals to ColumbiaDoctors primary and specialty care.

- **Strategy B5** – We will build and invest in a robust Patient Care navigation system for ColumbiaDoctors practices to expand access and improve the patient experience.

- **Strategy B6** – We will standardize and expand the workflows and functionalities in EPIC and use of technology across ColumbiaDoctors to improve patient access.

- **Strategy B7** – We will maximize the retention of current ColumbiaDoctors staff by ensuring they have the tools/resources they need to be successful in their role.

GOAL C AMBULATORY PRACTICE REDESIGN

We will redesign ambulatory practices to advance patient and clinician experience, including the integration of clinical research. We will reduce the administrative burden, improve staff support, and address the barriers to integrating clinical research into the clinic.

- **Strategy C1** – We will create high-performing teams by standardizing clinical practice management; standardizing provider support across clinical practices; and training staff to maximize patient visit efficiency. From a clinical research perspective, we will share research staff to increase resources; empower research staff to address patient resistance to clinical research through community partnership; and train providers on accessing clinical trial information.

- **Strategy C2** – We will implement interdisciplinary care models.

- **Strategy C3** – We will expand digital health capabilities.

RESEARCH MISSION

We lead and drive the discovery of new treatments and technologies to care for our community and patients.

GOAL D RESEARCH COLLABORATION SUPPORT

Enable greater research coordination and collaboration by reducing system barriers

GOAL E TRANSLATIONAL RESEARCH PATHWAY

Facilitate and standardize bidirectional translational research pathway

GOAL F RESEARCH WORKFORCE

Lead in innovative approaches to recruiting and developing research workforce

RESEARCH

GOAL D RESEARCH COLLABORATION SUPPORT

We will enable greater research coordination and collaboration by reducing system barriers. We will tackle systemic challenges in order to foster research collaboration across VP&S, with NYP, and with our partners across Columbia. We envision a future where Columbia's research mission is firmly anchored in cross-cutting scientific interactions that accelerate research innovation and amplify our scientific footprint. The collaborative research ecosystem is fostered/enriched and advanced through systematic, longitudinal, and transparent data-driven process improvement.

- **Strategy D1** – We will create streamlined processes and efficient workflows throughout the grant proposal, contract, and clinical trial lifecycle to better support development and execution of collaborative science.

- **Strategy D2** – We will promote and support collaboration and scientific interaction across Columbia University Irving Medical Center campus by working with departments, institutes, centers, and community stakeholders to identify and foster areas of synergy.

- **Strategy D3** – We will develop future leaders and we will support and incentivize current leaders to advance research collaborations.

- **Strategy D4** – We will support and facilitate research collaboration by implementing state of the art technological tools.

RESEARCH

GOAL E TRANSLATIONAL RESEARCH PATHWAY

We seek to make Columbia the premier institution for translational research in all disciplines. We will facilitate and standardize bidirectional translational research pathway from the lab to the clinic, to the community, and back.

- **Strategy E1** – We will enhance patient access to translational research by standardizing and simplifying patient consent process; streamlining the IRB process; improving HIPAA-compliant linking and utility of clinical data to patient samples; and building on the success of current initiatives (biobanking, etc.).

- **Strategy E2** – We will instill a campus-wide culture of translational research that is easily recognizable and well-advertised to patients, families, and providers. We will build bridges between basic and clinical investigators to enable translational research excellence.

- **Strategy E3** – We will identify incentives to overcome barriers of time, knowledge, and personal resources that prevent or undermine investigators to participate in and prioritize translational research.

- **Strategy E4** – We will establish and resource core infrastructure that will be accessible and affordable for all investigators across disciplines to pursue translational research.

RESEARCH

GOAL F RESEARCH WORKFORCE

We will develop leading and innovative approaches to recruiting and developing research workforce, in particular, post docs and professional science staff.

- **Strategy F1** – We will expand and formalize career prospects for postdoctoral scientists: A formalized, structured, mentored program for postdocs that cuts across all schools and departments with training tracks: academic, professional research staff, industry/entrepreneurial.

- **Strategy F2** – We will formalize a career track for non-union professional scientific staff by creating a tiered career advancement ladder for professional research scientists.

- **Strategy F3** – We will develop an improved mentorship program to advance our post-docs and other roles within research and that recognizes mentors.

- **Strategy F4** – We will formalize physician-scientist pathway by developing standardized training programs across divisions and departments. In addition, we will retain physician-scientists with competitive start-ups, such that they bring a return on investment for clinical departments/divisions.

- **Strategy F5** – We will develop a new funding model to support the academic lab: institutional commitment, expand entrepreneurial grants, new philanthropic model and continuing advocacy with NIH.

EDUCATIONAL MISSION

We educate the future leaders of the medical field

GOAL G EDUCATOR DEVELOPMENT

Increase support for educators

GOAL H LEARNER EXPERIENCE

Improve quality of learner experience

GOAL I PATHWAY STRATEGY

Advance innovative approaches to increasing diversity and inclusion in the biomedical workforce

EDUCATION

GOAL G EDUCATOR DEVELOPMENT

We will increase support for educators at VP&S to continue to attract phenomenal educators. Specifically, we will provide faculty with greater protected time for education and increased training/mentoring on teaching skills. We will ensure that VP&S continues to provide its learners with a best-in-class experience.

- **Strategy G1** – We will provide a centralized administrative hub for all education-related support needed by our educators. In addition, we will ensure that all departments have situated educational guidance and leadership.

- **Strategy G2** – We will increase transparency in our educational recognition programs, as well as compensation and promotion pathways.

- **Strategy G3** – We will stand up and offer consistent professional development and mentoring programs.

- **Strategy G4** – We will streamline educational research processes and procedures.

- **Strategy G5** – We will enhance collaboration with other Columbia Schools to expand continuous education for our educators.

EDUCATION

GOAL H LEARNER EXPERIENCE

We will improve the quality of learner experience by providing a productive clinical learning environment conducive to well-being and academic success.

- **Strategy H1** – We will provide a standardized framework for learner expectations across clerkships and residency programs, and we will ensure APP learners are included as key members of the team. We will offer weekly protected time for faculty to meet with students/house staff for brief discussion of group expectations.

- **Strategy H2** – We will conduct a structured needs assessment survey regarding needed resources for learners (students and house staff) including but not limited to computer workstations, lockers/areas for personal items, refrigerator/microwave, etc. We will ensure considerations for APPs as key members of the greater learning environment.

- **Strategy H3** – We will enhance Simulation Center services to support educational projects and expand the use of simulation as an educational tool.

- **Strategy H4** – We will develop our educators by creating a mentorship program for newer faculty, by providing peer mentoring groups and faculty development sessions.

EDUCATION

GOAL I DEI IN BIOMEDICAL WORKFORCE

We will lead in developing innovative programs to increase diversity and inclusion in the biomedical workforce by bolstering existing programs and integrating them across the career development lifecycle.

- **Strategy I1** – We will create a centralized office to support, coordinate, and expand VP&S biomedical pathway programs.

- **Strategy I2** – We will provide holistic support and resources to the diverse members of our VP&S community by providing pre-college, college, post-college students, faculty, and staff with the tools they need to advance their careers.

- **Strategy I3** – We will recognize and celebrate students and faculty who advocate in pathway programs and STEM education, including volunteers in outside programs.

- **Strategy I4** – We will expand our support and contributions to our community-based schools and teachers, and we will cultivate talent in our community and integrate them into our workforce.

- **Strategy I5** – We will expand national capacity by creating alliances with other universities and facilitating the admission process from their students to our school.

COMMUNITY MISSION

We value our local community and
work closely with them to create
new opportunities and partnerships.

GOAL J COMMUNITY WELLBEING

Leverage all assets across our missions to advance the wellbeing of our local communities

GOAL K COMMUNITY HEALTHCARE QUALITY AND ACCESS

Improve health care quality and access in our local communities

GOAL L BIDIRECTIONAL COMMUNITY RESEARCH

Grow bidirectional community based research

COMMUNITY

GOAL J COMMUNITY WELL-BEING

We will leverage all assets across our missions to design an approach to advance the wellbeing of our local communities in a cross-mission front.

- **Strategy J1** – We will increase our marketing presence within our community.

- **Strategy J2** – We will create a comprehensive inventory of assets that currently exist and formalize a structure around asset management.

- **Strategy J3** – We will create a cohesive vision and workflow around the sharing of health information and research findings with our community.

- **Strategy J4** – We will create a community track for physicians in the promotion process to recognize community-based work and their dedication to this type of medicine.

- **Strategy J5** – We will promote our successes and community-based collaborations by ensuring our accomplishments are widely communicated throughout the community.

GOAL K COMMUNITY HEALTHCARE QUALITY AND ACCESS

We will improve health care quality and access in our local communities. We will focus on how to strengthen the healthcare services in the community, particularly primary care, and related services, in partnership with NYP and with the existing community-based resources.

- **Strategy K1** – We will build a new physical ambulatory care building.

- **Strategy K**2 – We will expand trauma-informed care (TIC) and access to behavioral health services to all NYP and Columbia patients.

- **Strategy K3** – We will establish one class care system for all the community regardless of SES, health insurance, or any other factors.

- **Strategy K4** – We will improve information availability to enhance access and care for the community, especially the vulnerable and historically disenfranchised who have the most to lose. The focus is on equitable distribution, through efficient utilization and transparency.

- **Strategy K5** – We will implement system wide training on how to approach care for patients with different backgrounds and needs.

GOAL L BIDIRECTIONAL COMMUNITY RESEARCH

We will develop a comprehensive strategy to grow bidirectional community research.

- **Strategy L1** – We will stand up a centralized office of bidirectional community-based research.

- **Strategy L2** – We will set up a community-based steering committee that will be accountable for the progress of our growth.

- **Strategy L3** – We will enhance and expand education and training programs about bidirectional community-based research.

- **Strategy L4** – We will enhance and expand physical space for bidirectional community-based research.

- **Strategy L5** – We will perform a needs assessment on community-based participatory research to identify needs and expand resource allocation.
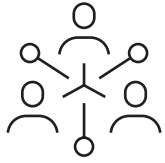
CROSS-CUTTING MISSION

We are collaborative, interdisciplinary, and forward-thinking. We create the best environment for our faculty, staff, and students.

GOAL M AI

Prepare for a future in which AI will play a significant role in advancing all missions

GOAL N MENTORING/CAREER DEVELOPMENT

Enhance mentoring and career development opportunities for faculty and staff, including clinical, community, educational, research, and administrative pathways

GOAL O INCLUSION AND BELONGING

Improve inclusion and belonging at VP&S

GOAL P INTERACTIONS/TEAMS/COMMUNICATION

Foster greater interaction and team-building (e.g., shared space, communications)

GOAL M USE OF AI AT VP&S

We will prepare for a future in which AI will play a significant role in advancing all missions by strategically planning how VP&S can ensure it is ready for the changes to come and can remain on the forefront of integrating AI to advance all our missions.

- **Strategy M1** – We will establish a centralized structure for AI oversight, ethics, policy, partnerships, and facilitation of research and inter- and trans-disciplinary collaborations.

- **Strategy M2** – We will participate in national policy on the use of AI to advance the health of individuals and populations by joining cross-organizational teams.

- **Strategy M3** – We will prioritize the well-being of our communities, and as AI takes a central role in medicine, facilitate safeguards to the equity and welfare of all members of the community.

- **Strategy M4** – We will establish VP&S as a powerhouse for AI medicine research by accelerating in creating a cohort of interdisciplinary faculty who will advance AI research.

- **Strategy M5** – We will leverage AI to optimize clinical operations and improve patient care.

- **Strategy M6** – We will leverage internal AI expertise to enhance AI literacy across VP&S.

CROSS-CUTTING

GOAL N MENTORING & CAREER DEVELOPMENT

We will enhance mentoring and career development opportunities for faculty and staff, including clinical, community, educational, research, and administrative pathways.

- **Strategy N1** – We will provide effective and quality mentoring including emotional support.

- **Strategy N2** – We will foster a culture of inclusivity, support, and engagement through enhanced onboarding practices, improved development opportunities, and recognition.

- **Strategy N3** – We will streamline and enhance operability of mentoring and career development resources using innovative tools including AI.

- **Strategy N4** – We will take unique advantages of group, peer, and cross-departmental mentoring, providing valuable support for the growth and development of faculty and staff.

- **Strategy N5** – We will establish and foster an inclusive and partnership-oriented work environment that embraces diversity, promotes mentoring, career development, and ensures that every staff member feels valued.

GOAL O INCLUSION AND BELONGING

We will deploy a coherent strategy that would encompass and integrate existing programs to further advance inclusion and belonging at VP&S.

- **Strategy O1** – We will implement a transparent and comprehensive model to document decision–making processes and progress of our I&B programs.

- **Strategy O2** – We will establish systems to hold our leaders accountable in relation to our I&B KPIs.

- **Strategy O3** – We will provide resources, systems, and education to support local and organizational-wide plans.

- **Strategy O4** – We will review our committees, working-groups, and employee groups and make the necessary changes to secure proper representation and inclusion.

- **Strategy O5** – We will develop a rewards system to recognize adherence to I&B initiatives.

CROSS-CUTTING

GOAL P INTERACTIONS/TEAMS/COMMUNICATION

We will foster greater interaction and team/community building through physical and virtual spaces.

- **Strategy P1** – We will build inclusive, interactive, and engaging physical spaces that facilitate organic interactions between faculty, students, trainees, administration, staff, and everyone within the community.

- **Strategy P2** – We will improve access to quality virtual spaces and communication to enhance networking and collaboration at VP&S.

- **Strategy P3** – We will enhance scientific collaboration and idea exchange across VP&S through cross-discipline scientific events.

- **Strategy P4** – We will encourage a stronger sense of community, purpose, and engagement through various community-building initiatives, including "Science for All" series and volunteering programs.
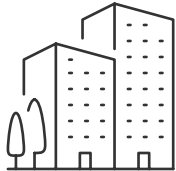
OPERATIONAL PLAN

Additional areas of focus were addressed outside of working groups and will be addressed as part of the strategic planning process moving forward.

FACILITIES
We will improve the function and use of current facilities.

CAMPUS SERVICES
Advance campus services and spaces that support collaboration and camaraderie across the medical center.

OPERATIONAL PLAN

FACILITIES

We will improve the function and use of current facilities.

- **Strategy 1** – We will launch a program that will ensure an efficient infrastructure by focusing on ongoing planning, repair, and modernization of essential building systems. This initiative will be designed to enhance sustainability and mitigate the impacts of potential emergency plant failures.

- **Strategy 2** – We will establish a comprehensive decision-making process for non-infrastructure investments.

- **Strategy 3** – We will advance facility upgrades and amenities that are tailored to the needs of our faculty, staff, and students to improve well-being and enhance the overall campus experience.

- **Strategy 4** – We will invest in and improve the functionality, aesthetics, and quality of new buildings (research and new residence buildings) and existing structures to promote a positive experience for all occupants.

- **Strategy 5** – We will improve the management of daily service disruptions and work requests, leading to enhanced customer satisfaction and streamlined operations.

CAMPUS SERVICES

Advance campus services and spaces that support collaboration and camaraderie across the medical center.

- **Strategy 1** – We will deploy a Campus Services Engagement that will connect our community to a central website of service providers and will improve wayfinding.

- **Strategy 2** – We will increase customer experience by reducing barriers, simplifying communication, and implementing technology that will automize workflows.

- **Strategy 3** – We will deploy a plan to automize the mail/package room that will include tracking software, central location, and the implementation of lockers.

- **Strategy 4** – We will change our current space utilization policy and we will implement scheduling software and a space database.

- **Strategy 5** – We will re-furnish and assess usage options of community gathering spaces.

APPENDIX: TACTICS

The tactics listed in the appendix represent specific recommendations from the working groups about how to support and achieve their recommended strategies. This information may be relevant to you as you provide feedback on the strategies themselves.

APPENDIX: CLINICAL TACTICS

GOAL A QUALITY OF CARE
Advance leadership in quality of care, including clinical excellence, patient-centeredness, and equity

STRATEGY A1: Consolidation of Quality Leadership and Resources/Creation of a Columbia Sphere Chief Quality Officer

Tactics for this strategy: Integrate the VP&S and NYP Quality Offices into one Columbia Sphere Quality Office with shared goals and infrastructure. The office is led by a single Columbia Sphere Chief Quality Officer (CSCQO) who articulates a single vision and ensures standardized methodology. The CSCQO should be identified as a person who can lead across the current sphere as well as grow the Columbia sphere influence at the state level.

1. This infrastructure diminishes competing interests and resources and eliminates redundant processes while streamlining communication and clarifying accountability.

2. A unified quality office that merges the FPO and NYP attends equally to quality and patient safety through all phases of care rather than continue a culture of siloed interventions between the inpatient and outpatient world.

3. Integrating the two quality structures allows for a shift from focusing heavily on metrics relating to safety events (HAI and other safety events) to a more holistic and cohesive improvement in the quality of care provided driven by a commitment to the pathways.

4. Quality resources consolidated into one office allows for equitable use of resources and reduction of redundancies.

5. This office would amplify successful efforts and focus on process simplification and efficiency.

6. Advancement of VP&S's academic mission and alignment of the clinical quality work with VP&S quality research.

STRATEGY A2: Development and Implementation of Clinical Pathways

Tactics for this strategy: Once pathways are implemented, the Columbia Sphere Quality Office can use success to be a quality leader at the state level to lead the uptake and spread of clinical pathways across New York State. This will secure our standing as leaders in outstanding care and continue to further equity of care across different regions throughout the state as well as the spectrum of healthcare institutions.

1. Improves quality of care by consolidating and standardizing best practices in the HER
   - Reduces cognitive load on providers and minimizes time in HER.
   - Improves safety by minimizing vulnerability of order errors.

2. Focuses on best practices and continuous improvement around a disease process rather than by a specific phase of care (e.g., in-patient versus outpatient).

3. Encourages multi-disciplinary approach to quality improvement.

4. Ensures equity and minimizes implicit bias by enumerating best practices for a disease process that is applied to all patients.

5. Allow for immediate incorporation, spread and uptake of new initiatives (e.g., new weight-based heparin dosing, introduction of new high-sensitivity troponin).

6. Allows for collection of meaningful data about compliance with pathways and variability in its use which leads to targeted interventions.

STRATEGY A3: Immediate optimization of existing technologies and resources to improve quality of care.

CUIMC has many resources already in use that could be adapted to improve patient experience, communication, and satisfaction. These should be identified and improved upon.

1. Identification of 1-2 projects that are easy to develop.

- Use of video message capabilities in MyChart for postoperative patient communication
- Use of electronic whiteboards in patient rooms to communicate the plan for the day.
- Creation of working groups and allocation of expert resources

2 Development of metrics to measure the effectiveness of the interventions.

3. Query other institutions for innovative practices

4. Commitment to the consolidation to one reporting system

5. Measurement of impact of projects on patient and provider satisfaction

6. Presentation/publication of interventions and results

GOAL B ACCESS TO CARE
Improve patient access

STRATEGY B1: Increase our online digital presence and use of technology to improve patient access.

1. Define Central Marketing vs. Departmental Marketing roles/responsibilities.
   - Create a central marketing budget to better compete within the local market.
   - Define central marketing role (i.e., bio cards, onboarding MD profile, online pre-operative education material) vs. Department effort/ownership (i.e., content updates, patient stories, referral links)
   - Standardize, centralize, and enhance website maintenance to keep up to date.

2. Improve Web Presence
   - Align branding across 3 websites: NYP, Columbia Doctors, Department and improve navigation between the 3 websites.
   - Purchase keywords and ensure keywords are content to appear in google searches.
   - Improve social media presence for every dept to connect with our patients virtually.
   - Utilize existing efficient platforms: google search engine, Doximity.
   - Have Contact/Scheduling pages in other language: i.e., Spanish.

3. Improve technical support and automation of processes.

4. Improve back-end phone Systems than can route patients better (e.g.: Press 1 if your MDs name ends in letters A-D, *79 to keep pt in queue and call them back when it's their turn)

5. Have Chat Function on the scheduling page to assist pts who visit our website.

6. Automated processes such as friendly reminders for annual follow-ups, post- ops, health maintenance (e.g., Colonoscopy), etc.

7. Establish centralized Patient IT support (i.e., Connect: locked out account, help with Video visits).

STRATEGY B2: Improve the capacity of both our primary care and specialty practices to maximize and increase patient access.

1. Utilize existing space and staffing more efficiently.
    - Engage FPO or outside consultant to develop standardized guidelines for staffing models/ratios.
    - Develop or invest in tools to understand and map out current space needs and restrictions, provider capacity, and demand (example: Qgenda)
    - Use advanced practice providers to the top of their licenses to expand capacity.

2. Expand capacity to improve patient access.
    - Offer extended hours including weekends, invest in and stand-up urgent care clinics, and expand use of virtual urgent care.
    - Develop dedicated Telemed space to increase exam room capacity.
    - Renovate the current space to allow for increased amount and more flexible exam rooms.
    - Create more offsite locations in neighborhoods patients live in to increase capacity at 168th St., partner with other practices through NYP or others to use their unutilized space.
    - Create uniform policies around standardizing processes for appointment cancellations and management, staggered starts.

3. Contracting to work with payors to remove pre-auth for certain procedures.

4. Have Chat Function on the scheduling page to assist pts who visit our website.

5. Automated processes such as friendly reminders for annual follow-ups, post- ops, health maintenance (e.g., Colonoscopy), etc.

6. Establish centralized Patient IT support (i.e., Connect: locked out account, help with Video visits).

STRATEGY B3: In collaboration with NYP, maximize access and ease for the transfer of patients from external and affiliated institutions.

1. Establish Standard Operating Procedure for Transfers
    - Prioritize new business from external hospitals.
    - Establish turnaround agreements for transferring back pts when possible.
    - Improve communication between Transfer Center, ICU, specialty services, bed coordinators, and accepting service using EPIC Chat

2. Implement e-consult to decrease the need for physical transfers.

3. Improve turn-around-time for room readiness to improve bed capacity.

4. Utilize EPIC discharge tool to prioritize tests for pts awaiting discharge.

STRATEGY B4: Optimize the management of both internal and external referrals to ColumbiaDoctors primary and specialty care.

1. Establish dedicated Referral Access Team for clinical departments.
    - Ensure standardized and timely scheduling of patients from referral work queues.
    - Monitor and optimize schedule utilization.
    - Monitor and optimize last minute cancellations and wait list.
    - Facilitate urgent appointments by creating a referral hotline.

2. Ensure payor participation is aligned across departments by geographic area and secure funding for related payor mix shifts.

3. Work with payors to remove pre-auth for certain procedures.

4. Foster internal referrals to reduce leakage to other institutions.
    - Prioritize internal referrals by reserving slots in schedules for internal referrals to be scheduled within 7 days.
    - Increase engagement between departments to facilitate internal referrals.
    - Increase use of virtual urgent care to reduce leakage.

STRATEGY B5: Build and invest in a robust Patient Care navigation system for ColumbiaDoctors practices to expand access and improve the patient's experience.

1. Establish state of the art navigation program
    - Hire patient navigators to engage with patients, departments, and providers, and facilitate pre-requisite testing and collection of records prior to visit.
    - Optimize bundled care for patients to minimize travel and optimize practice locations for patient satisfaction (ex: imaging/labs at every site)
    - Offer resources for out-of-town families (hotels/parking/what to expect)

2. Establish Clinical Triage Center
    - Staff RNs to help triage patients, get more urgent patients in sooner, get patients to the right Departments/providers, take care of non-appointment related issues on the spot (Rx refills, etc.)
    - Partner with NYP to better facilitate external inpatient transfers.

STRATEGY B6: Standardize and expand the workflows and functionalities in EPIC and use of technology across ColumbiaDoctors to improve patient access.

1. Optimize Scheduling Templates and Algorithms
    - Standardize and enhance EPIC scheduling templates to ensure there are sufficient blocks for new patients and telehealth visits.
    - Optimize and expand existing functionalities such as Fast Pass, freeze/thaw, wait list management, no show predictability to optimize booking based on algorithm.

2. Optimize EPIC Referral Workflow
    - Redesign referral order: Specify level of urgency, dx/sub-specialty (as opposed to referring provider), preferred location.
    - Automate WQ functions such as notifying referring providers when pt is scheduled, sharing appt summary with referring providers, and linking WQ referral to appt so it falls off WQ.

3. Expand and optimize self-scheduling options for patients, utilizing fewer human resources.

4. Expand and optimize use of e-consults while working to decrease unnecessary consults.

5. Improve patient capture and utilization on MyConnect.

STRATEGY B7: Maximize the retention of current ColumbiaDoctors staff by ensuring they have the tools/resources they need to be successful in their role.

1. Ambulatory Playbook
    - Develop playbook for all Practice Managers to implement and standardize best practices related to Access, Practice Management, HR, Important Contacts

2. Ambulatory Academy
    - Mandate Practice Mangers to attend "Ambulatory Academy" during onboarding – required trainings relevant to their role.

3. Develop Standard Operating Procedures for all job functions to assist with cross-coverage. Cross-train staff where possible

4. Create/develop career pathways programs with mentorship for newer staff with a focus on growth and retention.

APPENDIX: CLINICAL TACTICS

GOAL C AMBULATORY PRACTICE REDESIGN
Redesign ambulatory practices to advance patient and clinician experience, including integration of clinical research

STRATEGY C1: Create high performing teams.

While patients come to Columbia for our clinical expertise, most of their time and interactions involve navigating our complex system, usually with the support of our staff. Accordingly, we must provide consistent experiences across all types of care through centralized management and training of our clinical and research teams that emphasizes efficiency and assigns responsibility at the highest level of capability.

1. Centralize and standardize clinical practice management.
   - Assess current management of individual practices (FPO, HIP, etc.)
   - Analyze and improve current staffing ratio to enhance patient and provider satisfaction.
   - Create a standard model based on current high-performing practices.
   - Establish consistent management practices across the various locations, with flexibility to tailor needs of individual practices.
   - Centralized management of support staff

2. Standardize provider support across the clinical practices (complement and training)
   - Ensure adequate support staff are available in ALL practices.
   - Review existing onboarding structure to ensure consistency.
   - Emphasize culture of teamwork driven by our common purpose
   - Promote communication between physicians and staff through regularly scheduled staff meetings.
   - Standardized job title architecture, core competencies and practice-specific competencies
   - Implement CMA redesign for all practices.
   - Expand the number of CMA roles (to include new lead and supervisor roles)
   - Utilize existing competency model framework to establish standard behavioral, technical skill and performance expectations by role.
     - Assessment of competency, need for re-training.
   - Establish core competencies.
   - "Standardize the trainers"

- Customer service training
- Continuing practice-specific education and training
- Re-training existing support staff
- Regular staff meetings as opportunities for ongoing education
- Importance of office manager + physician lead involvement in staff training
- Establish and provide processes for feedback.
- Define career ladders and clear paths to promotion.
- Salary structure and productivity incentives, bonuses
- Career advancement incentives
- Opportunities for advancing to management

3. Train staff to maximize patient visit efficiency (in person & virtual) including care navigation/facilitation.
   - Standardized check-in process, option for mobile check in
   - Improve building signage.
   - Ushers at lobbies
   - Waiting room utilization (opportunities for live and virtual (TV) education, white board indicating wait times, etc.)
   - Support staff interactions, focus on customer service.
   - Expectation that follow-up appts are scheduled at time of check out.
   - MA/ RN will prepare the visit for the physician (troubleshooting technical issues, medication reconciliation, etc.)
   - Enhance the virtual waiting room experience (Digital Health Committee)
   - Identify causes and develop strategies to mitigate visit loss.
   - Enhance the checkout process for virtual visits (Digital Health Committee)
   - Expand availability of patient coordinators across ALL practices
   - Expectation that follow-up appts are scheduled at time of check out.
   - Ensure smooth and efficient flow of patients from entrance into the building to exit of building.
   - Coordination of follow up care and next appointment.
   - Harness availability of hospital volunteers in campus-based practices

4. Share clinical research staff to increase resources.
   - Utilize a group of department-specific study coordinators or research assistants

within the ambulatory practice areas to facilitate patient enrollment into a wide variety of studies in real time.

- Coordinators/research assistants can be designated to specific locations (e.g., 51st Street, PH, Harkness) or to specific floors depending on the projected volume of research being conducted.
- Coordinators/research assistants will be trained in phlebotomy to assist with streamlined collection of lab specimens for patients including both standard-of-care and research specimens.
- Coordinators knowledgeable about Irving Institute for Clinical and Translational Research and able to utilize the resources mentioned above.

5. Empower research staff to address patient resistance to clinical research through community partnership.
- Creation of community referral network
  - Investment in ongoing training for staff (from MAs to clinicians) in best practices for discussing clinical research with patients; up-to-date information about research opportunities for patients; support for patient education, decision making, and navigation translated into the languages spoken by patients and tailored to their cultures; and assistance with care coordination.
- Support bidirectional communication between community and researchers/clinicians to ensure that information is disseminated to the communities transparently and efficiently. Utilize lessons learned from COVID from the Division of Infectious Diseases Clinical Trials Unit and how these lessons can be sustained, amplified, and translated to other units. Examples are listed below.
- Monthly community forums, webinars, and scientific symposia
- Expansion of ACN Community Advisory Board (CAB) to include focus on research and/or creation of Research-focused CAB.
  - Utilize best practices from the ACN Comprehensive Health Program clinic CAB and the ID Division Clinical Trials Unit (such as AIDS Clinical Trials Group CAB and HIV Prevention CAB).
- Creation of Community Ambassadors Program working to build trust within the community and provide education and raise awareness of clinical research.
- Involve students from SOM, SON, Dental, Public Health

6. Train providers on accessing clinical trial information.

- Investigators, both new and experienced, are not aware of all resources available to support the research process.
- Needs assessment of current and new investigators to determine gaps in knowledge across Departments.
- Evaluation of same-day scheduling capabilities in the CRR space to offer additional support to Ambulatory Practices conducting clinical research where participants are identified in real-time, and space is needed to conduct visits.
- Create a centralized website that is easy to find and lists all the available resources.

STRATEGY C2: Implement interdisciplinary care modes.

We must make our care more patient-centered by implementing interdisciplinary care models around disease states. Similarly, research must be embedded in clinical care in a way that does not burden the clinical teams and makes participating in clinical trials an easy and positive experience for patients. No one doctor can take care of a complex patient, it takes a team – models of interdisciplinary care encourage provider collaboration and make the patient experience significantly better.

1. Identify disease states that would benefit from a model of interdisciplinary care.
    - Commence review of disease/health areas that would benefit from interdisciplinary care.
    - Identify which ones have the most volume and donor funding opportunities.

2. Identify spaces for interdisciplinary care centers.
    - Understand requirements for interdepartmental spaces.
        - Check in/Check out areas.
        - Phlebotomy
        - Exam rooms
        - Infusion/outpatient procedures
        - Counselling/support areas
    - Think holistically about how space could be used for interdisciplinary care across the medical center.

3. Address barriers (billing, compensation, non-RVU generating work, dedicated time for collaboration)
    - Support billing, remove barriers, for visits in joint or extra-departmental spaces.

- Revenue sharing
    - Determine equitable distribution of revenue.
- Facilitate foundation/grant support, philanthropy.
- Provide institutional support where needed with deficit support.
- Most important example is participating in committee/quality/patient discussion meetings.
- Acknowledge non-RVU generating activities in business plans and faculty promotion.

4. Embed clinical research coordinators in clinical practices; obtain agreement across department around research priority.
    - Optimized support for patient volunteers and healthcare providers, coupled with high-quality, standardized processes, allows the right provider to connect the right patient to the right research I.e., "Precision Research Referral."
        - Determine feasibility of clinical research coordinators being embedded into ambulatory practices to facilitate enrollment of interested patients (e.g., Dept of OBGYN, ID clinical trials unit)
        - Determine feasibility of research recruitment materials being available in all practices (pamphlets, flyers, QR codes that link to centralized research homepage and/or RecruitMe for example)
    - Concept of a "Clinical Research Corner" available in each practice where research information is displayed to ensure consistent model across all practices.

5. Collect clinical and research lab samples in one encounter.
    - Utilize research coordinators in clinical spaces to collect both clinical and research lab samples making it easier for patients to participate and for researchers to coordinate.

6. Enhance same-day scheduling capabilities where participants are identified in real-time.
    - Evaluation of same-day scheduling capabilities in the CRR space to offer additional support to Ambulatory Practices conducting clinical research where participants are identified in real-time, and space is needed to conduct visits.

STRATEGY C3: Expand digital health capabilities.

We must expand and optimize our digital health capabilities with the goal of removing the distinction between "in person care" and "digital health" so that it is a new type of seamless

care delivery. Digital tools should make the patient and provider's experience more facile and seamless, not less. Taking the time to properly design and optimize them will usher in a new way to deliver care.

1. Redefine the value of digital work (e.g., bill for messaging, advocate for CPT codes for digital/remote care)
   - Consider charging for MyChart messaging.
   - Identify & advocate for CPT codes to facilitate digital/remote patient care.
   - Consider clinician RVU allocation for digital work (e-consults, digital tasks such as # refills, messages, referrals, etc.)
   - Perform a needs assessment and consider a digital care team for each department based on patient demand.
   - Standardize support staff training to incorporate digital tasks within scope of practice. For example:
     - Train all allied staff to participate in digital rooming, responding to medical advice requests, designate Rx refill team, etc.
   - Utilize EPIC tools to measure digital workload and allocate central & local support resources such as staff or physician extenders where there is need for digital workload support.
   - Consider a digital care team for each department where there is patient demand.
   - Consider central digital access team per division like existing access center to timely fulfill digital requests, for example:
     - Responding to patient message requests for appointments
     - Screening referral work queues to facilitate timely scheduling of appointments.
     - Central RN Triage team to address advice requests for new health concerns with red flags words and routing internally to appropriate scheduling.

2. Expand remote patient monitoring for patients with complex conditions.
   - Expand remote patient monitoring care for patients with complex medical conditions requiring close care.
   - Expand and personalize E-consult options by departments.
   - Through EPIC, facilitate seamless multispecialty/multidisciplinary care such as scheduling multiple visits on same day of service in person or virtually.

3. Increase investment in MyChart/Epic tools.
   - Create a MyChart tutorial for patients clarifying the capabilities of MyChart.
   - Similarly, develop patient education digital modules (how to navigate the medical center campus, parking/transit, what to expect during your visit, etc.)
   - Consider utilizing existing and potential technology within MyChart to optimize usability experience. For example:
   - A "digital assistant" that can route patient requests in connect to appropriate channels 24/7
   - Building-in hard stops to prevent incorrect actions such as duplicate appointment requests, duplicate referral entries, incorrect refill requests, etc.
   - Facilitate appointment scheduling through connect to all services (specialty providers, radiology services, vaccine/lab services, etc.)
   - Care everywhere: facilitate access to viewing radiology images directly through EPIC, facilitate seamless access to outside medical records and consider an AI summary of outside medical records.
   - Explore possibility of embedding translator service directly through EPIC
   - Enhance the post-visit experience for in-person & virtual visits to clarify post-visit instructions.
        - Consider patient returning to "virtual waiting room" after video visits to enhance the check-out experience.
   - Incorporate patient focus groups to elicit and address patient-perceived digital challenges (e.g., accessing, Connect, etc.)
   - Create a liaison team for each department to incorporate the clinical (clinician, staff) user experience and encourage a process for "dialogue" between clinical team and informatics/digital health.
   - Form a center of excellence for digital healthcare services.

4. Expand CTMS to include all research to be linked in Epic.
   - Many providers are not aware of "Research Participant" highlight in Epic or how to access information if a patient is currently enrolled in a research study. Additional training is warranted for providers.
   - Consider expansion of use of CTMS to include ALL research across CUIMC to be linked in Epic so all research participation is documented in centralized location that both providers and research teams can access. Additionally consider simplification of use of CTMS if it will be utilized more frequently.

5. Invest in Epic capabilities to foster research (e.g., add "interested in research?" to MyChart page), utilize eConsent.
   - Complex obstacles exist in conducting clinical research and so greater utilization of infrastructure and support of electronic medical record systems is critical to drive efficiency. The following strategies are needed to address this:
   - Conduct focus groups with research teams to identify current gaps in utilization of Epic in the context of conducting clinical research. Work closely with Epic Research Team to identify features of Epic that may not be known or currently in use that be implemented.
   - Learn more about Epic's capabilities to foster research.
     - Add an "Interested in Research?" button to patients MyChart page that leads to the Columbia RecruitMe Website.
     - Explore the development of reports and the Haiku message feature to identify patients who may be eligible for studies.
     - Understanding how SlicerDicer and other aspects of Epic can be used to generate pre-screened patients for research.
     - Develop several work processes as exemplars to facilitate research teams initiating contact with providers.
   - Simplify the TRAC request process to ensure more transparency and clarity.
     - Appoint Department/Division leads and experts that can manage TRAC requests and remove bottle necks.

6. Create standard digital process to contact research teams.
   - Create standardized process to contact research teams (e.g., study team email, Epic Chat)

APPENDIX: RESEARCH TACTICS

GOAL D RESEARCH COLLABORATION SUPPORT
Enable greater research coordination and collaboration by reducing system barriers

STRATEGY D1: Create streamlined processes and efficient workflows throughout the grant proposal, contract, and clinical trial lifecycle to better support development and execution of collaborative science.

Develop a culture of continuous improvement and accountability that provides for a nimble administrative infrastructure better equipped to support research. Promote cross talk between administrative entities to standardize processes to the extent possible. Transform the Columbia University research collaboration ecosystem through systematic, longitudinal, and transparent processes of 1) self-evaluation and 2) iterative improvement.

1. Improve workflows across all administrative units, reduce unnecessary steps, establish benchmarks, and track time to completion. Create a process where iteration and improvement become part of regular workflow review.
   - Collect data to analyze and improve processes in grant and contract submission and review: from IRB, SPA and CTO, MTA/DUA, HR, to Purchasing. Include review of IRB/IACUC workflows with special attention paid to multicenter NIH projects in context of reliance agreements.
   - Develop a standard set of tools, reports, workflows to support research administration (e.g., use Teams, OneNote, eliminate email as the mechanism for the management of grants).
   - Streamline the entire grants lifecycle from application to award and reporting.
   - Across all platforms, share data on task completion timelines and utilize a "review queue" function to update and track progress.

2. Implement culture of engagement and accountability for university-wide system changes and redesign to ensure the needs of the medical campus are reflected.
   - Advocate for increased representation and consultation of medical school research community when medical center or University is modifying or implementing systems (i.e., finance, purchasing, HR, etc.) that impact research operations.
   - Implement requirements for all central offices to publish expected and actual service levels, with periodic reviews to ensure ongoing development and improvement, upgrades of university wide systems to meet research and business needs.

3. Evaluate staffing levels necessary to support more nimble administrative infrastructure and implement metric-based accountability for administrative functions supporting research.
   - Develop grant administration FTE model appropriate to support pre and post award workload within departments.
   - Identify appropriate staffing levels for IRB and CTO, SPA to improve job satisfaction and improve turnaround times for each office.
   - Establish practice to re-evaluate staffing levels annually or biannually according to changing volume and complexity, make data publicly available.
   - All this is important as we maintain an appropriate level of readiness for future public health threats and pandemics that will require efficient and nimble cross-disciplinary research and clinical trial infrastructure.

4. Develop a living tool – a grant road map – guide for investigators.
   - Reduce fragmentation and improve coordination of central offices that are utilized by researchers (i.e., CTO, CTV, SPA, IRB): Utilize a resource like central website to clearly outline functions, demystify and provide a map of the inter-connectedness of central offices that support research: e.g., CTO, SPA, IRB, CTV, IBC [see Strategic Goal #4].
   - Develop a living guide that outlines each step starting from idea development, budget preparation and subcontract/subaward set up, submission, and implementation to serve as a guide for new and experienced investigators and staff [grant road map].
   - Replicate this for sponsored projects such as clinical trials, both NIH and industry sponsored, that require speedy CDAs, very complex budgets and contract negotiation with external entities [MOU, DUA].

5. Leverage existing success stories within the organization and replicate them across departments.
   - Expand upon successful proposal development team in the VP&S Office of Research and teams in the CTO/SPA to further support proposal development across departments: recognizing that there is great variability in the complexity and diversity of projects across departments (e.g., for clinical trials and multicenter studies).
   - Standardize how administrative processes (pre and post award, contracting, HR, regulatory) are carried out in departments including provision of centralized training resources, repository of templates and checklists.
   - Enable staff to rotate across departments and/or create forums where staff can share and learn best practices.

6. Revamp the administrative structure of cores to reduce redundancies, encourage cross-departmental utilization and investment, and facilitate continual evaluation and upgrade of services to meet the needs of new studies and grant submissions.
    - Identify cores that serve multiple departments especially cores that serve collaborative projects and provide pilot data for early-stage investigators.
    - Consolidate overlapping cores and transition all cores (that truly serve users across multiple departments) under the management of the VP&S Office of Research.
    - Reduce/eliminate indirect cost burdens (e.g., space costs) that discourage departments from hosting cores that serve an interdepartmental user base.
    - Provide enhanced tangible support & recognition for faculty who serve as Core Directors to offset administrative/project management burdens and to incentivize strong, engaged leadership (e.g., allocate %FTE to Core).
    - Encourage use of interdepartmental advisory committees to provide school-wide input on core services and strongly advocate for regular evaluation and upgrade of cores to meet user needs, especially those of early-stage investigators.

STRATEGY D2: Promote team science and scientific interaction through investments in personnel, cross-cutting cores, networking mechanisms and funding to identify and foster synergies across departments, institutes, centers, and community.

If successful, research progress will accelerate at a significant speed, with an increase in innovative science which brings people together across our campuses and in areas of discipline which previously were competing/siloed rather than collaborating. Collaborative research projects will positively impact and accelerate scientific knowledge, translational science, and clinical care, and will enhance our regional, national, and international scientific footprint. Continue to leverage the dedication and cross-disciplinary expertise of the working groups to monitor outcomes and advise on progress.

1. Provide mechanisms for inter-departmental collaborations.
    - Provide more opportunities for in-person interaction between scientists in different departments and campuses.
    - Collaborative working groups and networking opportunities (i.e., happy hours, pitch evenings to showcase the science, informal poster sessions): promote inclusion

of early-stage investigators and trainees to increase access, sense of belonging and awareness of cross-disciplinary pathways.

- Establish a regular seminar series to highlight cross-campus collaboration and encourage all seminar series to provide opportunities for collaboration.
- Provide a visible and accessible platform to disseminate information about seminars and events [website or app]. See Strategic Goal #4.

2. Develop mechanisms to support community research collaborations in areas prioritized by the community.

- Support (seed money, admin support, grant development support, etc.) community engagement grants that promote collaborations between Columbia University /CUIMC PIs and community partners to further develop large scale grants (foundations, NIH, NSF). The focus of these grants needs to be on social determinants of health and priorities important to the communities we serve.
- Develop networking opportunities, conferences, workshops, podcasts, etc. to connect academic/clinical experts to the local and national community organizations to develop research agendas that are relevant to both entities.

3. Invest in interdisciplinary facilities and personnel supporting collaborative research.

- Establish funding and administrative support for ideas 1-3: Asses the need for a dedicated unit/office overseeing collaborative research, cross-cutting resources and team science initiatives on campus, cross CU and NYP
- Identify gaps in collaborative research both content/arena and infrastructure support: e.g., community participatory research, cross-cutting cores [surveys].
- Establish resources to promote team science and collaborative research by hiring specialized staff and scientists who conduct cross-collaborative research. Increase staff with expertise in supporting large multidisciplinary research grants, including community and international grants, to help navigate this space.
- Establish funding and administrative support for ideas 1-3: Assess the need for a dedicated unit/office overseeing collaborative research, cross-cutting resources and team science initiatives on campus, across CU and NYP
- Build opportunities for multi-PI grants, especially in the basic/and clinical translational science space.

4. Incentivize and reward participation in collaborative grants and inter-departmental projects.
   - Models that reward collaboration should be adopted across the board and made transparent [also see SG3 Idea 3].
   - Reinterpret promotion criteria: Participation in collaborative grants and research projects should be given more credit in the tenure process and promotion on the research and applied healthcare/public health sciences CUIMC tracks. Foster transparency in the promotion process and how intra and inter-departmental collaborations are rewarded.
   - Recognize and promote participation in collaborative grants within Columbia and other institutions: this includes not only participating as co-investigators but also writing letters of support & serving as advisors on collaborative grants.
   - Develop a model for how junior faculty collaboration/contribution to large or multisite grants is acknowledged. Recognize publicly via regular campus updates and on a central website.
   - Revise funds flow model to reward and encourage collaborative grants. E.g., revise indirect cost distribution between departments, opex charges on subawards.

STRATEGY D3: Develop future leaders and incentivize current leaders to enhance research collaborations.

The overarching goal and desired state are to achieve and maintain academic and clinical excellence, adherence to highest ethical principles, clear communication, and organizational health. The ability of researchers to collaborate is predicated on the overall culture and organizational soundness and well-being of the institution and its members. An important component is training and professional development of future research leaders, supporting current leaders, and holding them accountable through external and internal reviews and evaluations.

Definitions: A leader as used below generally refers to a center or institute director, division chief, or department chair; administrative leaders in research offices, dean's office included a priority.

1. Evaluate and address institutional cultural barriers to research collaborations.
   - Institutional culture can include resource allocation, shared beliefs, perceptions, practice vs. policy, how we collectively react to limitations, how we assess risk to advance the research mission.

- Implement and foster a practice of continuous improvement and periodic review in all central offices that touch the research enterprise, with a lens of reexamining procedures holistically (rather than layering on additional steps and requirements).
- Conduct an assessment to determine who receives resources and opportunities (salary, start-up funds and lab space, retention packages) at different stages and why, and make sure this information is transparently shared when possible. Include faculty in the assessment, evaluate using the DEI lens, acknowledge and address inequities.
- Establish clear processes for reporting obstacles to successful collaborations (including misconduct and compliance) and ensure that these tools are easily accessible on centralized website [See SG4 Idea 1].
- Implement transparent oversight and accountability mechanisms for shared resources, investments, and cross-cutting core facilities. Use performance metrics and data to actively identify areas that need support and "failures to thrive" as opportunities for exploration, study, and rapid intervention by leaders [See SG4 Idea 4]
- Establish a small task force (or charge the offices of faculty affairs, professionalism, and well-being) to evaluate current obstacles to collaboration and address through targeted interventions. Utilize data collected from past and future surveys. See suggestion in Priority D2, idea 3 about establishing resources.
- Leverage the dedication and cross-disciplinary expertise of working groups/committees to remain engaged in the process, monitor outcomes, and advise on progress.

2. Train future leaders who advance research collaborations: Create opportunities for early-and mid-career faculty.
   - Learn from other organizations about effective leadership training methods (see examples); invite external review/audit of our sites and share findings with CUIMC and University. Examples of external institutions that successfully train leaders for team science and collaboration: Michigan, Stanford, and Vanderbilt. Establish a diverse task force with faculty and staff who have worked at other academic institutions/nonprofit and for-profit sectors known to have high employee satisfaction and empower them to identify areas for improvement.
   - Professional development: Increase opportunities for early and mid-career faculty to develop leadership skills through greater access to classes, courses, and coaching (including timing so clinical faculty/faculty on clinical service can attend).
   - Expand the existing range of classes and courses and establish a centralized repository where information about course availability is easily accessible.

- Expand current investments in mid-career faculty by providing opportunities to launch new research programs and initiatives. This includes providing nimble mechanisms for bridge funding, especially for grants that scored highly and are on the cusp of funding.
- Promote transparency in how research leadership opportunities are created, disseminated, and granted. Apply the DEI lens to promote a sense of belonging.

3. Support current leaders: Engage and incentivize leadership in enhancing collaborations.
    - Enhancing collaboration should be an important metric by which performance of a leader is measured.
    - Clarify roles and expectations of current institutional research leaders; establish performance criteria and promote leaders who acknowledge and address problems and vet for conflicts of interest.
    - Help train leaders through evaluation and outcomes based on data from their teams and set the stage for leaders to be self-accountable.
    - 360o evaluation of leadership, key stakeholders and administrators of departments, divisions, and centers to help identify areas for improvement and promote a culture of openness to feedback, active solicitation of performance and iteration.
    - Provide support and coaching to foster learning and collaboration; identify expectations prior to advancement (i.e., Individual coaches).
    - Help leaders identify and reward successful collaborations. Highlight successful teams (dollars and culture); calculate ROI for teams as well as individuals and study failures to avoid repetition (as in business/technology). Crowdsource information (start with subcommittees).

STRATEGY D4: Leverage technology to advance research collaborations and communication across the institution.

Further develop communication infrastructure, including staffing and use of technology, to advance research collaboration. Use data driven approaches to track and evaluate success of strategies and programs. Utilize intercampus expertise in AI and advanced technologies to develop and support interdisciplinary collaborations that can lead to biomedical breakthroughs (from the molecular to the behavioral level).

1. Establish and expand centralized online resources to share information and promote synergies.

- Assess and catalog current website structures, remove redundancies and phase out old websites.
- Current IT infrastructure requires standardization and improvement across campuses to support collaborative research (i.e., webpage design, server space, and response times for grant specific IT support).
- Leverage IT infrastructure to enhance communication and reinforce the collaborative research vision by creating a centralized website to disseminate updates, celebrate accomplishments, and house resources in support of investigators, staff, and community members engaged in research collaborations. (see also SG1 Idea 4)
- Dramatically improve IT support for disseminating information, e.g., listservs, faster website updates etc. e.g., division chiefs and department chairs should be automatically notified when faculty submit grants.
- Establish online platforms to support communication among groups with shared scientific interests or projects (e.g., Slack groups, Teams).
- Create and maintain, with opportunities for scientists to self-update, research profiles. Highlight work happening at every school (e.g., Faculty Spotlights)
- Integrate information on core services available online onto one site which PIs can access and leverage (websites and/or app)

2. Establish and maintain real-time grant repository and research database.
    - Searchable database: Build a repository of collaborative, interdisciplinary funding opportunities (i.e., NIH, industry, DOD grants, Fogarty grants, etc.) with timely distributions, and grant development administrative support.
    - Develop and maintain online repositories where researchers can look up research activities and funded grants on campus (entire Columbia) (year 1).

3. Use a data driven approach to assess performance and drive iterative improvements.
    - Use technology to design easy to access surveys [referenced throughout the document] that are housed in a central website.
    - Analyze data (performance metric from administrative units, regular surveys on faculty/leadership satisfaction) to assess how we are achieving our goals and help make decisions about ongoing investments in the collaborative research mission. This will capitalize on campus expertise in data science and AI.

4. Create funding opportunities for biomedical research collaborations that harness large data and AI.

- Establish seed funding mechanisms for collaborative or transformative projects that apply predictive analytics and AI.
- Harness the capabilities of Epic and availability of electronic medical records to promote cross-campus research collaborations.

GOAL E TRANSLATIONAL RESEARCH PATHWAY

We seek to make Columbia the premier institution for translational research in all disciplines. We will facilitate and standardize bidirectional translational research pathway from the lab to the clinic, to the community, and back.

STRATEGY E1: Enhance patient access to translational research.

1. Ensure that all patients have access to translational research across all clinical disciplines.

2. Enable patients to access innovative first-in-human trials resulting from Columbia research.

3. Streamline Institutional Review Board (IRB) and Clinical Trials Officer (CTO) procedures.

4. Standardize acquisition of patient samples across all departments/divisions

5. Improve HIPAA-compliant linking and utility of clinical data to patient samples.

6. Standardize and simplify patient consent with the goal of obtaining universal consent for all patients seen by ColumbiaDoctors/NYP:
    - Implement a universal (generic) consent via CONNECT as part of patient check-in.
    - Universal consent would provide an entry point for identification of patients for protocol-specific recruitment and consent.
    - Have staff available on site to consent to patients who do not have access to CONNECT.
    - Consents should be made accessible to non-English speakers.
    - Utilize community outreach and engagement to educate patients on research and to diversify representation.

7. Biobanking:
    - Build on the success of the biobanking initiative to standardize collection of patient samples (blood including live mononuclear cells, urine, tissues and/or cell lines)
    - Customize specimen collection for "universal" or study-specific protocols.
    - Generate web-based searchable database of bio-banked specimens accessible to compliant investigators.

8. Streamline IRB processes to make more user-friendly:
    - Create standard universal protocols.
    - Create "template" protocols that can be adapted for specific studies.
    - Improve and resource the IRBs support of research activities.

9. Build on the foundation of existing successes:
    - Biobank Resource for Investigating Disease, Genes, and Environment (BRIDGE)
    - The Herbert Irving Comprehensive Cancer Center (HICCC), The Irving Institute for Clinical and Translational Research (CTSA), Columbia Technology Ventures (CTV)
    - Current disease specific groups that have independently built established procedures.

STRATEGY E2: Improve communication to enhance collaboration in translational research.

1. Instill a campus-wide culture of translational research that is easily recognizable and well-advertised to patients, families, and providers.

2. Build bridges between basic and clinical investigators to enable translational research excellence.

3. Create effective communication strategies for cross-disciplinary collaboration to improve translational research.

4. Create opportunities to learn about the research interests of others that may form the basis of new, undiscovered translational studies, grant opportunities, and clinical trials.

5. Enhance/improve communication at all levels, e.g.,
    - among basic researchers
    - among clinical researchers

- between the basic and clinical investigators, and with their trainees/staff
- "Translational champions" to identify and connect basic and clinical researchers that complementary interests.

7. Searchable database to locate investigators across departments who may have shared interests and/or relevant expertise.

8. Communicate and promote translational research opportunities via research newsletters and the use of a centralized calendar of events.

9. Enhance access to and use of social media to foster collaboration and communication.

10. Leverage existing seminar series to incorporate/promote translational research.

11. Create cross-disciplinary translational working group for basic and clinical investigators.

12. Translational retreats focused on specific diseases/clinical problems.

13. Pilot programs to enhance and encourage translational research across disciplines.

14. Piggyback onto InfoEd and Pivot to identify and advertise pilot programs.

15. Build upon and learn from local success stories (HICCC, CTSA)
    - E.g.,RecruitMe: recruit.cumc.columbia.edu/and CUSP: irvinginstitute.columbia.edu/services/columbia-university-scientific-profiles-cusp

16. Build upon and learn from institutions that have "gotten it right" e.g. Netherlands Cancer Institute, pittplusme.org

STRATEGY E3: Enabling investigators to pursue translational research.

Need to identify incentives to overcome barriers of time, knowledge and personal resources that prevent or undermine investigators to participate in and prioritize translational research.

1. Clinical faculty need real protected time and "credit" (e.g., research RVUs) for their time/effort to participate in research.

2. Competitive pay scales to support recruitment and retention of the best possible faculty, trainees, and staff.

3. Recognize efforts of basic investigators for translational research, including for promotions and retention.

STRATEGY E4: Enhance core infrastructure for translational research.

Establish and resource core infrastructure that will be accessible and affordable for all investigators across disciplines to pursue translational research.

1. Create a Clinical and Translational Studies Core that would leverage and expand existing resources (e.g., HICCC and CTSA) to support all phases of research across all disciplines including for:
    - Implementing IND-enabling studies
    - Research space for phase 1 studies
    - Staff to support the preparation of protocols, address regulatory issues, data input, analysis, and writing.

2. Improve aspects of the IRB to make them more accessible, responsive, efficient, and user-friendly.

3. Strengthen support for and access to biostatistics and bioinformatics.

GOAL F RESEARCH WORKFORCE
Lead in innovative approaches to recruiting and developing research workforce

STRATEGY F1: Expanding and formalizing career prospects for postdoctoral scientists.

1. Traditional/academic research track.

2. Entrepreneurial/industry track – collaborate with CTV, for projects destined for commercialization.

3. Professional research track – intersects with workgroup 3, emphasis on stability rather than additional training.

STRATEGY F2: A career track for non-union professional scientific staff.

1. Establish a non-tenure research academic track to acknowledge the intellectual and managerial roles scientists contribute to a research group.
   - Create a non-tenured research academic track (e.g., research assistant professor), separate from the "at CUMC" track used in clinical departments, with clear expectations for the role under a PI.
   - Allow these individuals to formally supervise professional research staff (e.g., technicians, associate research scientists, etc.).
   - Define clear expectations for job areas (knowledge, problem solving, decision making/ autonomy, leadership, technical expertise, communication skills, and degree qualifications) for promotions and raises on this track.
   - Explore ways to increase the competitiveness of this track with careers outside academia (see recommendation 3.2).

2. Tangibly acknowledge the significant contributions by professional research staff towards furthering research endeavors at our medical school.
   - Utilize and publicize career ladders that demonstrate growth and accomplishment to provide a clear path forward for talented research staff. Career ladders should be achievable for the staff members and not a burden on managers.
   - Incorporate the importance of a middle authorship into the professional research staff promotion and raise process when their work significantly contributes to the research output (e.g., statistical analysis). Encourage co-corresponding authorship when appropriate.
   - Use administrative titles to acknowledge the important contributions professional research staff make to a research group or department.
   - Promote cultural change amongst the faculty to accept alternative career paths. Encourage faculty to foster the careers of professional research staff by fostering skill building and helping them move into positions of growth.

- Ensure salaries for professional research staff remain competitive with peer institutions/ outside academia and reduce the financial burden of living in a high cost-of-living city.
- Encourage PIs to allow individuals on this track to receive co-corresponding authorship on projects for which they significantly contributed intellectually.
- Promote a culture and environment of career transparency.

3. Encourage departmental leadership and PIs to champion the career growth of professional research staff.
    - Ensure career ladders are achievable by the staff and easily accessible on the HR website.
    - Require managers to complete yearly performance reviews and goals.

STRATEGY F3: Improved mentoring programs.

1. Communication:
    - Guide for faculty to what a postdoc should/could do in a lab:
    - Educate PI's what roles of a postdoc vs project manager vs research technician.
    - Postdocs are apprentices to learn and build their own career model.
    - Counter impetus of achieving the PI's own specific aims.
    - How to deal with disappointment of trainees dis-engagement.
    - Discussion of projects that could be taken with the postdoc for their own lab.

2. Engagement
    - List of offerings for training with diverse modalities: asynchronous online, as a group online, in person, formal course programs.
    - Consider baseline standard training expectations for mentors. Rascal-based training. Emphasize benefits for all.

3. Recognition of good mentoring
    - Highlight on mentor's website/faculty profile whether they have taken steps to be trained in better practices.
    - Indicate active steps to take recognized training such as CIMER.
    - Publish PIs' trainee outcomes on lab websites.

STRATEGY F4: Physician-Scientist pathway.

1. Establish a formal roadmap and consistency across the Institution regarding length of mentored training, time to faculty position, time to independence, time to obtaining independent funding (T32, K08, R01).

2. Institutional committees suggesting / evaluating mentor matches, with research projects tailored to physician-scientists in which clinical departments/divisions can be involved.

3. Consider retaining physician-scientists with competitive start-ups, such that they bring a return on investment for clinical departments/divisions.

4. Protected research time:
   - Establish sources of salary (outside of external funding) that support physician-scientists and reduce the salary inequality between physician-scientists and full-time clinicians.
   - Modification of RVU expectations for physician-scientists.
   - Formal establishment of criteria for physician-scientist candidates to enhance likelihood of success.
   - Ensure consistency in these policies across the institution.

STRATEGY F5: A new funding model to support the academic labs.

1. Expand use of SBIR/STTR and other entrepreneurial grants

2. Public/private (philanthropy) partnership

APPENDIX: EDUCATION TACTICS 📖

GOAL G EDUCATOR DEVELOPMENT
Increase support for educators

STRATEGY G1: Consolidate education administration, leadership, and oversight.

1. Create a single, centralized administrative hub for all education-related support.
   - This centralized hub will offer an umbrella organization for all educators (and current educational programs and offices e.g., CERE, APGAR, etc.) on campus and facilitate cross-departmental collaboration & coherence.

2. Ensure that all departments have situated educational guidance and leadership.

3. Facilitate cross-departmental collaboration and coherence.

STRATEGY G2: Clarify educational recognition, compensation, and promotion pathways.

1. Introduce a career roadmap to all faculty in Educator track.
   - Create a COAP panel that is dedicated to the evaluation of promotion documents for the educator track.
   - Ascertain existing departmental best practices for "at CUIMC" including those who serve on COAP.

2. Clarify the baseline of teaching expectations for all faculty at VP&S.
   - Create job descriptions for all formal UME and GME roles with clear effort support.

3. Reimagine educator funding processes for greater transparency and consistent educator benefit.
   - Determine education task weights relative to other responsibilities.

STRATEGY G3: Offer consistent professional development, and mentorship.

1. Create professional development opportunities and requirements starting w students, through trainees and faculty.

2. Provide universal mentoring, peer assessment, and professional development opportunities for educators.

3. Pilot educator development with VP&S faculty

4. Expand capacity of educator support offices

5. Expand access to existing educator development initiatives available in other settings (e.g., APGAR)

STRATEGY G4: Streamline education research processes and procedures.

1. Collaborate with the IRB to facilitate the submission of educational research.

2. Enhance educational data precautions and access.

3. Build data infrastructure that satisfies growing education, research, evaluation, and accreditation needs.

4. Fund seed grants and centralized resources specifically designed to support research in medical education accessible to all departments.

5. Create a centralized mechanism for organizing and communicating research and scholarly opportunities, research advising, and mentoring in medical education science, research and scholarship.

STRATEGY G5: Enhance collaboration with Teachers College and other schools and entities with an education focus.

1. Forge meaningful interprofessional partnership with Teachers College and other schools with educational expertise

2. Enhance campus awareness of the importance of the clinician (in medicine, nursing, dentistry, public health, etc.) in the classroom and clinician as teacher.

3. Create certificate programs, series and/or annual conferences; and leverage intra-CU partnerships, GME partnerships.
    • Opportunity for revenue generation in the future

GOAL H LEARNER EXPERIENCE
Improve quality of learner experience

STRATEGY H1: Communicate expectations.

1. Standardized framework for learner expectations across clerkships and residency programs.

2. Weekly protected time for faculty to meet with students / house staff for brief discussion of group expectations.

STRATEGY H2: Resources for learners.

1. Needs assessment survey regarding resources for learners (students and house staff) such as computer workstations, lockers/areas for personal items, refrigerator/microwave, etc.

STRATEGY H3: Expand the use of simulation labs across the medical center.

1. Program where faculty could apply to get Sim Center support for an educational project.

2. Simulation Center CME/faculty development.

STRATEGY H4: Faculty development of educators.

1. Mentorship program for newer faculty with focus on education using more senior faculty, particularly from the Apgar Academy and Academy for Clinical Excellence.

2. Peer mentoring groups for faculty with educational focus.

3. VP&S-wide faculty development sessions on topics such as giving and receiving feedback.

GOAL I PATHWAY STRATEGY
Advance innovative approaches to increasing diversity and inclusion in the biomedical workforce

STRATEGY I1: Create a unified CUIMC pathway program and DEI office.

Assumptions/rationale driving this plan: We have amazing pathway programs, but they mainly focus on late high school and college levels and these programs exist as islands. They lack administrative and financial support, are not coordinated with other programs and between schools, and are hard for candidates to find. CUIMC pathway programs have specific needs (lab/hospital onboarding process) and goals (biomedical workforce) in common.
Inputs, or what we need to invest for this plan to succeed:

1. Leadership that reflects our local community diversity

2. Staff with appropriate expertise, including administrative staff, financial advisors, education and career advisors, grant writers and fundraisers.

3. Centralized website describing programs and providing a streamlined portal for applications.

4. Database for longitudinal follow-up of pathway participant

5. Financial resources for salaries, holistic support (housing, meal plans, transportation, waivers of university visiting fees), workshops and social events, job fairs, etc.

6. Standardized benefits for pathway program participants, facilitated procedures for onboarding and access, coordinated collaboration with NYP, expansion of opportunities and programs.

7. Coordination of program directors and long-term mentors after program time windows

8. Annual virtual symposia for pathway program alums

9. Space to belong and for social/cohort opportunities.

Outputs, or expected outcomes that justify this plan (impact):

- On the short-term time scale:
    - Website with streamlined application process, better local promotion, more admin support, and less red tape will increase program accessibility and increase the number of applicants.
    - Increased cohort support will lead to less attrition and more peer mentorship.
- On the medium-term time scale:
    - Increased coordination between schools, between programs, and with external programs (i.e., NYP, Double Discovery, SMRI) will lead to more retention in biomedical pathway.
    - Career fairs, events, workshops will support skill-building for retention in biomedical pathway (personal finances, applications, transition to the next step, interview skills, etc.)
    - Expansion of paid opportunities (scribe, internship, observer, research, etc.) will increase the number of pathway program participants.
- On the long-term time scale
    - Sustainable long-term funding (federal grants, private foundation grants, donations, corporate sponsors like Pfizer and Regeneron) will allow program endurance.
    - Long-term mentorship (faculty, near peers, peers) will increase retention and success of pathway program participants.

STRATEGY I2: Holistically support our diverse community.

1- Pre-college, college, and post-college students.

Assumptions/rationale driving this plan: Our pathway programs are excellent at providing exposure to lab or health sciences and some offer salary support, but most are not able to offer support outside of the lab/hospital or beyond the time window of the program. Factors outside of the program are the biggest obstacles that block participants from continuing their path to the biomedical workforce.

Inputs, or what we need to invest for this plan to succeed:
1. Non-salary financial support (housing, meals, transportation costs, waive onboarding fees)

2. Family financial support to minimize competing obligations for those who might have a responsibility to support their families (I.e. parents, younger siblings, grandparents), allowing them to participate in summer/after school STEM/research/medical exposure programs; this could take the form of money, food/meals (especially during the summer when schools do not offer free lunch, i.e. family meal nights at hospital cafeteria), lower summer rent if they are renting in Columbia-owned buildings

3. Social and bonding opportunities (co-housing, events, trips across programs)

4. Support for program alumni to transition to next-step pathway program.

5. College scholarships (CUNY/SUNY/HBCU partners), low-interest loans, tuition waivers (grad programs), moving costs, college loan repayment programs for pathway program participants.

6. Advice on college and biomedical program applications (graduate, medical, nursing, dental, PT school, etc.) and financial aid

7. Academic STEM support

8. Personal financial advice (credit, budgets)

9. Gap year programs (six months in Costa Rica learning medical Spanish, global perspectives on nursing and healthcare, partner with HBCUs, etc.)

10. Professional skills job training and clinical exposure (apprenticeships, observerships, EMT training, scribe training, medical translation training, etc.)

11. Technician-matching fairs + bootcamp, postdoc-matching fair

12. Family support (affordable childcare, parental/caregiver leave/support, housing, parking)

13. Administrative/mentorship positions for alums of programs to return.

14. Long-term mentorship; pair mentees with mentors (faculty, near peer, peers); regularly scheduled meetings; annual IDP (Individual Development Plan) meetings for career planning

Outputs, or expected outcomes that justify this plan (impact):
- On the short-term time scale:
    - Cohort network
    - Greater access to programs
- On the medium-term time scale:
    - Support and advice on getting to the next stage in biomedical pathway.
    - Program to program mobility
- On the long-term time scale:
    - Local pre-college and college students get exposure and resources for long-term career in biomedical workforce.
    - Reduced attrition at different points of the pathway

2- Faculty and Staff.

Assumptions/rationale driving this plan: CUIMC has specific challenges to recruiting, retaining, and promoting diverse faculty, in basic sciences, clinical research, and the hospital. Having faculty and staff that mirror our community's diversity would serve our local community better, allow us to connect to our local community better, and better leverage our local community for unique research and health care service opportunities.

Input (what we invest):

1. Sensitivity training for all, including security guards and facilities people, especially on microaggressions, the unequal application of rules, implicit bias, assumptions made based on appearance, and how these do not contribute to a sense of belonging; in particular, anyone interfacing with students (training, interviewing, security screening) should have proper training.

2. Workflow/facilities accommodations for all abilities (physical, neurodiverse, etc.)

3. Admin support (shared time) for diverse PIs on >2 university/departmental committees

4. Increased neighborhood safety: blue boxes, repair roads and streetlights, street crossing guards in high traffic intersections and dangerous areas, particularly intersection of W 165th and Fort Washington (work with city to create underpass or overpass for vehicles)

5. Better transportation options: parking, satellite parking, frequent shuttle from parking lots and subway stations; intercampus shuttle

6. Family support benefits: family planning options; affordable and accessible childcare and eldercare; housing subsidies or options; family professional advancement (i.e., employment assistance; education assistance); good public-school options; (parent retirement funds?)

7. Clearly defined faculty total compensation package

8. Transparency and equity in benefits and salaries

9. Long-term mentorship: assignment of senior mentors plus peer mentor group

10. Expanded access to professional development programs for career advancement.

11. Diverse faculty cohort hires across departments

12. Social/network opportunities (brown bag lunches, evening socials, family picnics, events)
Outputs, or expected outcomes that justify this plan (impact):

- On the short-term time scale:
  - Clearly defined benefits for different stages of life and different socioeconomic backgrounds
  - Increased trust and engagement by faculty and staff
  - Increased sense of belonging and inclusion
- On the medium-term time scale:
  - Increased faculty/staff recruitment and retention
  - Improved wellbeing
  - Increased NPS ("Would you recommend the university to a friend as a place to work?")
- On the long-term time scale:
  - Increased sense of belonging and inclusion
  - Better career development and mobility
  - Improvement in quality of life for personnel and their families

STRATEGY I3: Support the supporters.

Assumptions/rationale: Many amazing people at CUIMC already participate in these programs... we need to support them and incentivize others to join the effort, especially to accomplish many of the plans described here, such as long-term mentorship. These require large numbers of committed individuals willing to spend time with young people. As a benefit, this committee predicts that self-fulfillment and job satisfaction will be increased if people feel they are part of something bigger than themselves and if their efforts toward a good cause are supported and recognized.

Inputs (what we need to invest):
1. Recognition, financial support, and admin support for student and faculty advocates in pathway programs and STEM education, including volunteers in outside programs.

2. Effort counted toward promotion and tenure, credits for facility use, float holidays, other incentives.

3. Family financial support

4. Low interest loans or loan repayment program for people with student debt

5. Discounted local childcare or other childcare support services for faculty and staff.

6. Lower rents in Columbia-owned housing for staff/admin of CUMC or the hospital (Penn did it!)

7. Tools provided to easily track engagement, have effective conversations, and other aspects needed to participate.

8. Assistance with identifying potential funding sources and writing grant applications (e.g., R25)

9. Support in lobbying NIH, HHMI for pathway program funding (e.g., HHMI terminated a successful program that supported URM summer students; NIH could include budget for more holistic support)

Outputs, or expected outcomes that justify this plan (impact):
- On the short-term time scale:
  - Increased recognition and protected time/effort
  - Improved experience
  - Better teaching/mentoring
- On the medium-term time scale:
  - Increased faculty, student, and staff participation in programs
- On the long-term time scale:
  - Strengthened relationships.
  - Increased self-fulfillment and job satisfaction

STRATEGY I4: Expand local community capacity.

1- Schools and programs

Assumptions/rationale driving this plan: Columbia missed a real opportunity to invest its parents and resources in local public schools and PTAs when it instead created its own separate private school. Having Columbia parents in the public school system would have strengthened local

schools. In wealthy districts, PTAs compensate for weak DOE budgets by raising hundreds of thousands of dollars. For example, in a typical Upper West Side elementary school (P.S. 9), the Parent Association raises >$800,000 per year. Half of this pays for assistant teachers in every classroom, which decreases student-to-teacher ratios, supports the kids and teachers, and allows the school to recruit and retain excellent teachers. The rest pays for other teachers and services not supported by DOE budgets (special ed, music, art, and language teachers, librarian), for classroom furniture and repairs, books, field trips, and more. Columbia should invest now in its local community by partnering with local schools and PTAs to prepare our local diverse student population for careers in the biomedical workforce.

Inputs, or what we need to invest for this plan to succeed:

1. Annual contributions to local PTAs

2. School services for kids: wellness clinics, vaccine clinics, nutrition education, cooking classes, food pantries, special ed services, neuropsych evals for dyslexia, ADHD, mental health services

3. CUIMC volunteers for after-school tutoring, clubs, athletics, music/art programs, AMNH field trips, other STEM programs, etc.

4. Support for and expansion of school-based STEM programs and activities (i.e., Lab in a Box, CLOTH, Open Streets, etc.)

5. Training for counselors/teachers at Morningside Center for Teaching Social Responsibility in restorative practices, on financial aid/college applications, summer STEM programs, other STEM activities

6. Grant writing expertise for local schools

7. Lower rents and subsidized childcare for teachers, staff, and parents at local schools

8. Scholarships or low-interest loans for top 10% of local high school graduates; partner with CUNY/SUNY and HBCUs

Outputs, or expected outcomes that justify this plan (impact):
- On the short-term time scale:
  - Increased accessibility
  - Enhanced community access to operating tools
- On the medium-term time scale:
  - Increased # of students with preparation/interest in biomedical careers.
  - Positive CUIMC branding: making Washington Heights a great place to live, work, and raise your kid.
- On the long-term time scale:
  - Strong, self-sufficient local schools and STEM programs to recruit and retain diverse workforce, including recruiting faculty.
  - Community trust will allow unique collaborations and research opportunities: community is more likely to participate in clinical studies and public health research.

2- Skills and job readiness

Assumptions/rationale driving this plan: Local diverse talent for our biomedical workforce is in our community; cultivation of that local talent will benefit both the community and CUIMC. Andres Nieto, the Senior Director of Community and Population Health at NYP and a member of our working group, grew up at 176th St. and went to public schools. He told me that he was an "average student" who never saw a guidance counselor or college advisor. He had dreams but his teachers told him to aim lower: this is the soft bigotry of low expectations. Some of our best graduate students are disadvantaged students from NYC, and these students are not put off by the idea of living in The City. CUIMC should take advantage of this deep, relatively untapped, and diverse talent field.

Inputs, or what we need to invest for this plan to succeed:
1. Local campaign to increase awareness of different career tracks using traditional approaches (i.e. in-person events; advertisements) and modern approaches (i.e. videogame platforms; social media).

2. Workshops and training in careers for which there is local need (childcare, biomedical workforce such as DO, path tech): target both older students and parents.

3. Partnerships with community colleges, trade schools, and B-certified corporations for certification programs and CUIMC-based training rotations for roles needed in the biomedical workforce; assist with program development; assist with DOE certification if needed; help with applying for grant.

4. Train retirees or phased retirement personnel or other non-traditional transitioning adults to become educators/trainers for on-the-job training programs.

5. Incentivize local talent to bring their skills back to the community as entrepreneurs (i.e., afterschool science programs, pathway programs) or to work at CUIMC or other community-based organizations.

Outputs, or expected outcomes that justify this plan (impact):
- On the short-term time scale:
  - Increased awareness of biomedical career paths
- On the medium-term time scale:
  - Increase in job readiness.
  - Increase the # of students admitted to training programs.
  - Continued engagement from retirees/potential retirees
- On the long-term time scale:
  - Decrease in vacancies in biomedical workforce.
  - Increase in community employment and economic stability: help our community build generational wealth.
  - Washington Heights = a great place to live and work

STRATEGY I5: Expand national community capacity.

Assumptions/rationale driving this plan: NYC is a destination that attracts many to relocate. A diverse workforce includes representation from different parts of the country. CUIMC can partner with other institutions to leverage each other's strengths.

Inputs, or what we need to invest for this plan to succeed:
1. Partner with HBCUs to host junior faculty as they work to receive their first R01 and while home institution builds capacity to support them, bring excellent students and postdocs here.

2. Partner with universities in diverse communities to set up their own local pathway programs.

3. Admit students into CUIMC Ph.D. programs attending MA programs from institutions that do not offer Ph.D. programs.

4. Admit students into CUIMC from community colleges to CUIMC BA programs.

Outputs, or expected outcomes that justify this plan (impact):
- On the short-term time scale:
  - Established relationships with other institutions
- On the medium-term time scale:
  - Increased pool of students from different backgrounds and identities
  - Consistent practices and evaluation tools across institutions
- On the long-term time scale:
  - Universities with fewer resources expand their capacity to offer additional education.
  - programs and accept more students.
  - Increase data on effectiveness of different pathway programs.

APPENDIX: COMMUNITY TACTICS

GOAL J COMMUNITY WELLBEING

Leverage all assets across our missions to advance the wellbeing of our local communities

STRATEGY J1: To amplify our messaging and synchronize across the institution.

1. Develop a cohesive marketing/branding for any initiative rolling out from the Medical Center

2. Identify individuals within departments/divisions/centers who are responsible for this in their individual silos. Examine opportunities for cross collaboration (formal or informal).

3. Develop a community events marketing team to work on events in conjunction with the resource identified in Strategic Goal 2 to ensure that we're marketing and publicizing these events across multiple media platforms (social media, radio, flyers at bus stops etc.)

STRATEGY J2: Create a comprehensive inventory of assets that currently exist and formalize a structure around asset management.

1. Formalize a process/responsible entity for maintenance of assets and to work in conjunction on community-based initiatives across the institution and NYP.

2. Determine whether a centralized resource model would best serve the needs of the institution to meet this strategic goal. This may require reorganization within Departments, or a new group created to live within the Dean's office.

3. Consider whether this should be jointly funded through an NYP/CU venture to ensure a cohesive collaboration to address strategic goal 1.

STRATEGY J3: Create a cohesive vision and workflow around the sharing of health information and research findings with our community.

1. Data sharing should be a value across the organization and can be used to advance community partnership through a CUIMC developed process and pathway.

2. Utilize community events to publicize how our successes and accomplishments have had impacts on our local community.

STRATEGY J4: Create a community track for physicians in the promotion process.

1. Faculty who prioritizes community-based work should be recognized for their contributions and dedication to this type of medicine.

2. Examine how this track can be expanded to our nurses/dental and public health care professionals.

3. Engage discussions around effort allocation to community-based work and funding this effort. Discuss how this may impact clinical productivity and how to create space for individuals to engage in this type of work.

STRATEGY J5: Promote our successes and community-based collaborations.

1. Create iterative trust growth mechanisms by promoting the relationships we have established.

2. Work closely with teams identified in Strategic Goals 1 and 2 to ensure that our messaging is appropriately reaching our audience.

GOAL K COMMUNITY HEALTHCARE QUALITY AND ACCESS
Improve health care quality and access in our local communities

STRATEGY K1: Create a new Physical Ambulatory Care Building

1. House ALL services related to ambulatory care under one facility.
   - Delivery of outpatient medicine by faculty and trainees.
   - Provide complimentary services.
   - Implement a business model that facilitates provision of care to all members of the local community.

- New Facility should have a dedicated space for community health and wellness services.
- Space dedicated for didactic and hands on training.

2. Establish Urgent care facility to meet the needs of the community.
    - Include navigator services with this space.
    - Work together with existing health care delivery systems to integrate those care systems with NYP/Columbia Doctors
    - Post-acute care
    - Behavioral Health
        - Urgent
        - Community physicians

3. UC needs to be available for both current and new patients. Needs self-scheduling through mychart and other web-based access to scheduling (will require IT upgrades)

4. Suggested physical location: DOH building corner of 168th St. (already 95% occupied by NYP/CUIMC.

5. Align Services with existing Community Based ACN practices.
    - Ensure that provision of care within the new ambulatory care facility aligns services with existing community based – ACN practices.

6. Committee run by Lee Goldman to work with the city of NY, state of NY to create a space to goals.

7. Will need to partner with community activists and politicians to make this a priority.

8. Fund raising
    - Larger Corporations:
    - They get to be a part of community building and growth and health.
    - They get to partner with NYP/Columbia
    - Community fund raising will be important as well.

STRATEGY K2: Expand Access to Behavioral Health Services to ALL NYP and Columbia Patients

1. Build upon current models of integrated care in pediatrics, internal medicine, Family Medicine and OBGYN:
    - Develop staff ration required to adequately address patient needs.
    - Expand understanding, access to trauma informed care (TIC)
    - Increase number of clinical providers (psychotherapy and psychiatry)
    - Increase number of case managers and administrative support
    - Train all primary care providers, including all trainees in all disciplines, in assessing, treating and monitoring mild mental health symptoms.
    - Implement universal screening and response protocols.
        - Align domains of screening and instruments to be used for each domain.
        - Develop a risk stratification and bundles of care model.
        - Fully integrate above in EPIC
        - Develop workflow and patient engagement strategies.
    - Utilize evidence-based models of short-term care.
    - Provide training to all clinicians and staff on trauma-informed care.
    - Resource clinics and teams to be able to implement.

2. Strengthen and expand partnerships with community-based social services and mental health agencies:
    - Develop closed-loop navigation and referral pathways with multiple community-based mental health providers.
    - Identify new and strengthen existing partnerships.

3. Improve access to appropriate and holistic pain related care and substance abuse treatment.
    - Comply with evidence-based standards of care, with consideration of cultural, racial, ethnic, language factors impacting patient's report of pain and openness to different treatment modalities.
    - Resource clinics and teams to implement.
    - SBIRT

APPENDIX: COMMUNITY TACTICS

STRATEGY K3: Eliminate structural barriers that have resulted in multiple class care due primarily to financial status.

1. Redesign medical center and free-standing practice access processes
   - Create scheduling system to prioritize urgency (routine, urgent, emergent)
   - Ensure scheduling and provision of services are agnostic to insurance and/or financial status.
   - Implement comprehensive benefit navigation that is provided after scheduling and, if necessary, service provision
   - Develop clinical scheduling pathways to facilitate and ensure that all patients have equal access to the appropriate provider or service based on clinical indications.

2. Develop and implement robust data analytic and reporting system that ensures performance metrics are valid, interpretable, and actionable.
   - Data Collection and Validation – implement a uniform data collection and validation framework to systematically collect demographic data from patients, their caregivers and community served. Engage with patients and community members to provide input on the data collection and validation process.
   - Data Training - identify areas to train staff to support data collection and validation.
   - Data Stratification and Reporting - Based on data collected, stratify by financial and insurance status, by patient safety, quality and/or outcome measures by Real (Race, Ethnicity, and preferred Language) Data, SOGI (Sexual Orientation and Gender Identity) data and SDOH (Social Determinants of Health) data to identify potential disparities.
   - Use a reporting mechanism to routinely communicate patient population metrics and outcomes to senior leadership.
   - DEI Initiatives and Programs - Use data to identify risk areas and opportunities to inform or prioritize initiatives and programs related to DEI.

3. Culturally Appropriate Patient Care - Practice cultural humility and activities that improve culturally appropriate care such as language access and health literacy.
   - Provide Advance Language Access, Health Literacy, and the Provision of Culturally Tailored Services
   - Training for Staff - Provide staff training on topics ranging from: Health equity definitions and concepts, diversity, and inclusion (implicit bias training), cultural

competency topics unique to the organization and patients/communities served, or social factors and social needs.
- DEI Support for Staff - Hospital celebrates diversity through events or staff communications.

4. Reduce healthcare delivery inequities for people with disabilities so they can have the same access to providers, facilities, and services.
   - Ensure entrances have accessible ramps and automatic doors.
   - Ensure all clinical areas have ADA compliant bathroom facilities.
   - Ensure all clinical areas have wheelchair accessibility.
   - Ensure all clinical areas have accessible exam beds and/or to tools needed to help patients onto the exam bed.
   - Create inclusive multisensory signage that is appropriately placed throughout the medical center and all patient practice areas.

5. Ensure sustainability of Strategic Goal, i.e. "One standard of equitable, exceptional ambulatory, emergency and inpatient care for all patients that is agnostic to their financial, resident or immigration status" by fully utilizing federal, state, and municipal programs designed to support the realization of a high quality, equitable healthcare delivery system.
   - Create and implement a charity policy that allows the patient to move through the continuum of care at CUMC and NYP.
   - Implement NYS Medicaid Ambulatory Patient Group (APG) payment methodology in Columbia University space like that provided in NYP Article 28 spaces.
   - Implement and expand NYS Article 31 and 32 programming to help meet the mental health and substance use needs of patients.
   - Access Medicaid Disproportionate Share Hospital (DSH) Payments through negotiation with NYP to support joint CU/NYP strategic vision for one class care of exceptional quality for all patients.
   - Plan and implement a Federal Qualified Health Center (FQHC) on the CUIMC that supports overall strategic goal.
   - Expand the use of HRSA, CDC, NYS, and NYC service delivery grants that can finance important components of the overall model and thus help ensure sustainability. This will involve accepting the often greatly reduced IC rates that are part of the opportunities.
   - Vigorously pursue philanthropic support for the strategic goal and continue to ensure contributors are recognized for their efforts.

STRATEGY K4: Improve information availability to enhance access and care for the community, especially the vulnerable and historically disenfranchised who have the most to lose.

1. Map and share CUMC/NYP services- survey to each dept. leadership/high volume clinicians/chief residents.
   - Early phase- (1yr -this can be a quick win)
   - (months) Launch "CUMCare" website to start listing incoming data (password protected; allow user feedback) see example of what it can look like AIM's medicineclinic.com crowdsourced referral page
   - (months) Sharable phone book– with services like Doximity (dialer is already downloaded by many clinicians for easier telehealth than EPIC); they are willing to host an institutional phone book file.
   - Long term – (1-3 yr.)
   - Rebuild EPIC point of care "smart referrals"- with branching logic to triage with age, insurance, location, urgency, complexity. Clinicians learn quickly from referral info listing. Information visible on the order will automatically give scheduling info phone/loc.
   - Order gives direction for appropriateness (see benign Heme MGUS order).

2. Enhance EConsult function for all service lines (1-2 yr.) Beyond clinical consult, allow this order to facilitate scheduling question "where/who do I send this case?"; or "can you help me fast track this case). This means EConsult needs admin support.

3. Manage capacity and respond to needs or underuse (yrs.) –Routinely generate epic visit and no show/unutilized slot reports to find out what services are over or under subscribed. Alert to repeated EPIC orders that lead to no visits.
   - Manage no shows and unscheduled slots; NS cause a vicious cycle of delays and lost opportunities for other pts.
   - Define algorithm for "appropriate referrals".
   - Clarify "release" -many patients can be sent back to primary care to open consult slots.
   - Visit count monitoring to assess supply/demand, adjust, manage inefficiency or overbooking. Display capacity with color coding to show bottle necks. We also need to ask training programs to provide predictable and consistent schedule slots.

4. Departmental community care Dashboard – Assess % of services provided by dept to community versus noncommunity patients (by zip code), by attending vs trainees.

5. Maintain clinical service information sharing -monitoring and mapping-dedicated staff with feedback, use crowdsource.

STRATEGY K5: Implement Systems wide training on how to work with and talk to patients of all different backgrounds and needs.

1. Formalize ways for patient feedback that is anonymous and timely.
   - Feedback gets to providers in an emotionally sensitive way.

2. Mechanism for Staff and Provider to receive and learn from feedback of care experience.

3. Implement Staff Emotional Health Training

4. Social media, videos, etc. Campaign

5. Have secrete patients that can provide feedback to staff, providers, trainees. This must be an on-going effort.

GOAL L BIDIRECTIONAL COMMUNITY RESEARCH

Grow bidirectional community based research

STRATEGY L1: Create a centralized office/resource for bidirectional community-based research.

1. Centralized resources with knowledge of existing resources and initiatives, and awareness of geographical breadth.

2. Creation and maintenance of informational website

3. Create linkages/synergies with the other key offices/entities at CUIMC (including office of research, the other schools, NYP) that have similar strategic goals.

4. Oversee the streamlining of operational (e.g., contracting), financial (e.g., payment for community partners) and regulatory processes (e.g., IRB approvals, increased translation services) that currently present barriers to community-based research.

5. Centralized access to advice regarding wraparound services for community participants and enhance those existing programs.

6. Centralized pre-award support for grantsmanship for investigators and community partners, promotion, and creation of funding opportunities.

7. Targeted philanthropy to increase funding for community-based research.

8. Provide resources to promote the sustainability of community-based research including transitional funds and increased knowledge translation to community members.

9. Periodic needs assessments of both investigators and community members.

10. Creation of a protocol review process within IRB review to ensure community considerations are embedded in the research project or clinical trial.

STRATEGY L2: Create a Community-Based Research Institutional Steering Committee.

1. Set and maintain the overall VP&S goals and strategies in community-based research.

2. Steering committee members to include administrators and faculty from CUIMC as well as interested community members and government officials (rotating)

3. Advisory to the centralized office in SO#1

4. Interface with similar initiatives across the other schools in the University and NYP

5. Ensure achievement of the desired geographic catchment and representativeness of engaged community partners

APPENDIX: COMMUNITY TACTICS

STRATEGY L3: Enhance and expand education and training programs for bidirectional community-based research.

1. Assess current training programs and develop new community-based research training programs as needed.

2. Improve dissemination of research results to community

3. Creation of training for cultural and linguistic appropriate research and patient care

4. Enhance and expand pathway programs for community members to become engaged research personnel, including investment in paid positions.

5. Enhancing and existing and create new partnerships with CBOs, community schools (including high school and undergraduate), HBCUs and possibly other academic institutions and select industry partners.

6. Establish mentorship programs for community members interested in pursuing engagement in community-based research.

7. Work to increase the capacity within community partners.

8. Incorporate education regarding community-based research and resources into faculty onboarding process.

STRATEGY L4: Enhance and expand physical space for bidirectional community-based research.

1. Increase awareness of existing space, including the types of spaces and their current purposes

2. Perform periodic needs assessment for space including locations as well as type/size of space.

3. Identification of one main centralized space where the resource in SO#1 could be housed, along with spaces designed for community engagement, research, and education.

STRATEGY L5: Enhance and expand resources specifically for community based participatory research.

1. Perform needs assessment and inventory of existing programs in VP&S for CBPR including existing CBPR training programs.

2. Identify priority public health issues and research questions for the community elicited with the community.

3. Identify new processes that would enable more community parties to participate and share influence in CBPR.

4. Improve dissemination of research finding processes and elicit meaning and next steps from the community's perspective.

5. Stimulate existing community-based research to incorporate CBPR with their current partners.

6. Create CBPR-focused initiatives within tactical goals and resource infrastructure in SO#1.

APPENDIX: CROSS-CUTTING TACTICS

Prepare for a future in which AI will play a significant role in advancing all missions

STRATEGY M1: Establish a centralized structure for ai oversight, ethics, policy, partnerships, and facilitation of research and inter- and trans-disciplinary collaborations.

1. Establishment of clear policies and protocols around the usage of data and data mining for ai.

2. Governance around data and AI processes within VP&S & CU.

3. Data privacy and cyber-security protocols.

4. Clear establishment of protocols around data ownership, access, sharing, monitoring, confidentiality, data minimization when dealing with external vendors and interactions.

STRATEGY M2: Impact national policy on the use of AI to advance the health of individuals and populations.

1. Leveraging VP&S expertise in AI, ethics and justice and fostering participation in national working groups to become national leaders in ai for health.

2. Increase AI health literacy to inform policymakers.

STRATEGY M3: Prioritize the well-being of our communities, and as ai takes a central role in medicine, facilitate safeguards the equity and welfare of all members of the community.

1. Establish a community advisory council at VP&S for patients to facilitate bi-directional AI research.

2. Establish a transparent monitoring platform to identify undiscovered health disparities that exist in VP&S patient populations.

3. Implement predictive models that use AI to facilitate early detection and prevention of burnout in healthcare professionals and trainees.

STRATEGY M4: Establish VP&S as a powerhouse for AI+ medicine research.

1. Create a cohort of interdisciplinary faculty who advance AI research in health (i.e., faculty cluster hire)

2. Develop the necessary environment to stay competitive and to facilitate innovation in ai and health through collaboration and computational infrastructure.

3. Advance and innovate ai methodology for the specific challenges of health and medicine, with attention to causality and health disparities research.

STRATEGY M5: Leverage ai to optimize clinical operations and improve patient care.

1. Re-envision provision of care through an AI-clinician partnership.

2. Support the needs of clinicians (care teams) through ai to reduce burden.

3. Implement ai tools to support shared decision making and patient-provider interactions.

4. Leverage our learning health system to evaluate and learn from patient care documentation and care team actions to improve workflows and care processes.

STRATEGY M6: Leverage internal ai expertise to enhance AI literacy across CUIMC.

1. Training our own workforce to facilitate integration of AI across VP&S

2. Strengthen and expand training programs for stakeholders across AI and health.

3. Establish an adaptable system to ensure cutting edge and sustainable ai + health training at VP&S
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GOAL N MENTORING/CAREER DEVELOPMENT

Enhance mentoring and career development opportunities for faculty and staff, including clinical, community, educational, research, and administrative pathways

STRATEGY N1: Provide effective and quality mentoring including emotional support "I need advice, and I know you care."

1. Departmental Leadership Outreach to each faculty and staff member during the first three months of joining CUIMC, and provide mentoring by field of interest, job responsibilities and career path.

2. VP&S Academy of Mentorship: Create a VP&S Academy of Mentorship where faculty and staff mentors and mentees can consult for emerging issues and difficult problems.

3. Mentorship Leads: Ensure there are two leads in each department for Mentorship (one Staff and one Faculty)

STRATEGY N2: Together with leadership: fostering a culture of inclusivity, support, and engagement through enhanced onboarding practices, improved and recognition "come, let's talk...nice work!"

1. Academic Leadership Development: Changing the culture at the top via targeted leadership development for departmental chairs and other academic leaders, proactively work in encouraging mentoring among faculty and staff.

2. Timely delivery of promises made by leadership.

3. Recognition: (1) Implement "Nominate Your Mentor/Mentee"; (2) Implement VP&S Senior and Junior mentorship awards in clinical, research, education, community for faculty and staff to be distributed in an in-person Award Ceremony

4. Increased Cross-Departmental Collaboration: More funding mechanisms and awards for cross-departmental research. Need to increase faculty's sense of being valued and appreciated and having meaningful opportunities to pursue cross-departmental research. Examples: pediatric health, antimicrobial resistance, immuno-oncology.

5. Cross-Departmental Funding to invest more support into centers that cross-pollinate. Even small funds can be used to create forums for interaction. With buy-in from office of research for strategic vision. Sense is that we underutilize the potential and skills/knowledge of current faculty.

STRATEGY N3: Streamline and enhance operability of mentoring and career development resources using innovative tools, including AI. "Here are some resources as we invest in you."

1. Centralize existing mentoring and career development resources by VP&S role (e.g., faculty, clinical staff, admin staff) on a central website and provide a "Start Here" mentoring summary to new employees. (For a clear definition of mentoring, see "Don't Talk About Mentoring" by Kerry Ann Rockquemore.)

2. Expand and Improve Resources and Communication: Fill gaps in mentoring and career development resources to ensure resources are available and responsive to the needs of the entire VP&S community. Better advertisement for existing mentoring services (ACE, Dean's Office). Coffee Club. Creating a Columbia Resources App with links for resources (e.g., Mentoring).

3. Tools including AI: Use technology to support managers, HR, and employees in accessing mentoring and career development infrastructure (e.g., Qooper Mentoring Software). Inform employees about the benefits and limitations of AI-based mentoring tools and provide an AI advice tool trained on CUIMC materials.

STRATEGY N4: Taking unique advantages of group, peer, and cross-departmental mentoring, providing valuable support for the growth and development of faculty and staff. "We are a community."

1. Cross-departmental and cross-generational mentoring programs and coaching teams: network-based mentoring encourages the development of a wider variety of mentoring

partnerships to address specific areas of knowledge and expertise. need to create mentoring programs specific to tenure track faculty, at-CUMC track faculty (clinical, education, and investigator), and staff.

2. Peer mentoring and support groups: improve engagement of faculty and staff by creating peer mentoring/support groups.

3. Virtual communities: develop virtual communities for mentoring that extends relationships.

STRATEGY N5: For staff: establish an inclusive and partnership-oriented work environment that embraces diversity, promotes mentoring, career development, and ensures that every staff member feels valued. "You matter."

1. Create and standardize career pathways and job descriptions that clearly illustrate career ladders and growth opportunities.

2. Mentoring programs: Establish formal mentoring programs focused on staff that match experienced employees with those looking to develop their careers. encourage cross-generational mentoring, pairing more experienced staff with younger employees, and vice versa.

3. Career development: Offer career development workshops, leadership training, seminars, and one-on-one coaching sessions for staff. develop a clear career.

4. Performance management system for staff: create performance appraisals with different sections (e.g., core job functions, strengths, weaknesses, goal setting, mentoring, and professional development)

GOAL O INCLUSION AND BELONGING
Improve inclusion and belonging at VP&S

STRATEGY O1: Transparent communication

1. Adopt transparency in decision-making processes at the departmental and institutional

level, especially when I&B are impacted. This helps establish trust.

2. Establish best practices, shared code of conduct, and metrics for inclusionary behavior to foster inclusion & belonging at the systems and local levels.

3. Clearly delineate means for identifying and sharing opportunities for faculty and staff.

STRATEGY O2: Accountability on all levels

1. Establish systems for accountability across all levels of leadership (anyone with direct reports)

2. Create accessible and searchable repository of I&B metrics from each school.

3. Leadership Training on Accountability:

4. Implement leadership training programs focused on accountability, ensuring that leaders understand their roles in fostering inclusion and belonging.

5. Consider term limits for leadership positions.

6. Conduct annual 360 performance evaluations for leaders/managers.

7. Collate and present departmental I&B efforts annually by dept chairs to their depts, the Dean, and Chair cohort.

8. Create opportunities for community members to actively participate in accountability initiatives.

STRATEGY O3: Systems and local support for L&B efforts

1. Provide resources - best practices, education, and standards across the institution via a centralized resource hub.

2. Establish central funding support for local I&B efforts and ensure transparency in the allocation and distribution.

3. Develop I&B recruitment & retention strategy.

STRATEGY O4: Equal opportunity and representation for all groups

1. Ensure representation from each employee group within leadership and non-leadership committees & positions.

2. Develop and implement structured mentorship program for all employee groups, including both faculty and staff.

3. Engage the CUIMC community, make space for actionable feedback.

STRATEGY O5: Develop reward systems for adherence to L&B programs.

1. Identify and publish desired I&B metrics and outcomes.

2. Identify and develop annual rewards and incentives for I&B outcomes for individuals and for departments.

3. Develop a scoring system for departments that is linked to reward; map to internal CUIMC funding opportunities and budget process.

4. Establish incentives for faculty/staff to serve as mentors and leaders in I&B work (e.g., professional acknowledgement/recognition, compensation)

GOAL P INTERACTIONS/TEAMS/COMMUNICATION

Foster greater interaction and team-building (e.g., shared space, communications)

STRATEGY P1: To create inclusive, interactive, and engaging physical spaces that facilitate

organic interactions between faculty, students, trainees, administration, staff, and everyone within the CUIMC community.

1. Create a comprehensive community space plan by defining guiding principles, collaborating with key partners (e.g., NYP), assessing existing space usage, consulting with experts, and identifying budget sources.

2. Reviving existing places for more interaction-conducive space (e.g., the Faculty Club).

3. Designate new spaces by introducing adaptable interaction areas, repurposing underutilized rooms, sharing departmental spaces, and exploring the possibility of adding terraces.

4. Space designs should be made considering community needs to include faculty lounges, flexible workspaces, meeting areas, recreational zones, diverse food options accessibility, sustainability, flexibility, and inclusivity to serve the entire community effectively.

STRATEGY P2: To improve access to quality online (virtual) spaces and communications to enhance networking and collaboration at CUIMC.

1. Streamline communication practices to improve access to and quality of shared information.

2. Create an intranet that increases accessibility to available resources for specific needs, including:
    - An online searchable database/directory that can identify professional and personal interests.
    - A set of curated email listservs that can be utilized by staff and faculty to send invitations to events and symposia and provide a tool for outreach.
    - An inventory of all electronic communication tools available to the CUIMC community.

STRATEGY P3: Enhance scientific collaboration and idea exchange across CUIMC through cross-disciplined scientific events.

1. Establish a regular (weekly) lunch/seminar series led by basic science faculty, featuring

talks by CUIMC faculty, with a set schedule, "themed" months, and coordinated scheduling to avoid topic conflicts with other seminar series.

STRATEGY P4: Encourage a stronger sense of community, purpose, and engagement through various community-building initiatives, including a "Science for All" series and volunteering programs.

1. Establish a "Science for All" series with the goal to foster a broader understanding and sense of pride around the clinical care achievements, scientific investigations, and research at CUIMC. Presentations and discussions will be in "layman's terms" to ensure wider engagement. Series can include:
    - Educational sessions
    - Interactive demonstrations
    - Family-friendly events – including children – to bring about a sense of community.

2. Establish a volunteering program with a focus on promoting team building and benefiting the CUIMC community:
    - Improve communications of existing opportunities of volunteering and mentoring programs.
    - Create a directory of volunteering opportunities.
    - Create a network of volunteers within the CUIMC community.
    - Institute a volunteer recognition program.
    - Develop a mentorship volunteering system for postdocs and students to mentor middle/high school students from the local community and CUIMC/NYP employees. Additionally, this will offer faculty and staff various volunteering activities to further enhance team dynamics.