

Department of Biostatistics and Bioinformatics (B&B) Faculty Handbook

November, 2025

Contents

Department of Biostatistics and Bioinformatics (B&B) Faculty Handbook	1
Preface	4
About B&B	4
Message from the Chair	5
Present Faculty Administrative Structure	6
Associate Chairs	6
Division Chiefs:	8
Directors of Graduate Studies (DGS):	8
Faculty Ranks and Tracks	9
Faculty with Voting Privileges (Regular Rank Faculty)	9
Tracks for Faculty with Voting Privileges:	9
Faculty without Voting Privileges (Non-Regular Rank Faculty)	9
Governance	10
Faculty Meetings	10
Standing Committees	11
Faculty Promotion	12
General Process for Dossier Preparation at B&B	12
Promotion for Faculty in Basic Science Tenure Track	15
Promotion for Faculty in Career Track	17
Promotion to 5-year Rolling Contract within Career Track	20
Promotion for Faculty with Joint, Secondary, or Adjunct Appointments:	21
Composition of Department APT Committees with Voting Rights	22
Faculty Hiring and Appointment Procedure	22
Faculty Mentoring	25
Guidelines for Mentors and Mentees	27
Support of Mentee	27
Committee Expectations	27
Expectation of Mentees	28
Grant Support Resources	29
Expectations for Funding and Teaching	29
Culture, Engagement, and Impact	30
Professionalism	30

Faculty Grievance	31
Scientific Culture and Accountability Plan (SCAP)	31
Cited and Useful Links	31

Preface

This document is to supplement the <u>Duke Faculty Handbook</u>. The handbook is made publicly available to encourage transparency and accountability for our department. It will be updated annually to reflect changes in the department and any changes in Duke policies. Comments are welcome and can be submitted by email to <u>Dr. Huiman Barnhart</u> or <u>Dr. Laine Thomas</u>.

About B&B

The Department of Biostatistics and Bioinformatics (B&B) in the Duke University School of Medicine is committed to being the nexus of biomedical data science at Duke University and beyond. Our faculty engage broadly across the School, Duke Health, the University, our region and the world to advance human health, from discovery to delivery, through methodological innovation, education, and interdisciplinary collaboration.

Our goals are to:

- Provide national and regional leadership in biostatistics, integrative genomics, translational biomedical informatics
- Provide training and education to the next generation of researchers and leaders in biomedical quantitative science
- Collaborate broadly to enhance and reinforce the clinical excellence of Duke Health through the informed and ethical use of data, statistics, and data science
- Uphold the Duke values of respect, trust, inclusion, discovery and excellence

B&B currently houses four educational degree programs: the PhD Program in Biostatistics, the Master of Biostatistics Program, the Clinical Research Training Program (CRTP), and the Master of Management in Clinical Informatics (MMCi). B&B also is the administrative home of the inter-departmental PhD program in Computational Biology and Bioinformatics (CBB).

Message from the Chair

The faculty handbook is intended to codify the principles, policies and processes that enable us as a department to pursue excellence in academic scholarship, enhance the reputation of our faculty and align our activities productively with the School of Medicine, Duke Health, and Duke University. As faculty and as a department we have a responsibility to contribute to the public good, to hold each other to a high ethical standard, to support each other, our staff, and our trainees as we perform research and educate, train and mentor. A very important value for me is creating a safe, inclusive environment that tolerates dissent and rewards excellence. Since starting at Duke, I have come to appreciate the wonderful environment and the excellence of the faculty, staff and students. I feel privileged to have such an excellent group of individuals to work with and I am honored to be your chair. My job, in part, is to help each of you be successful, be recognized, and be fulfilled in your work in our department. I look forward to working with all of you to make B&B a worthy home for health-related quantitative science at Duke.



Duke University Medical Center

Present Faculty Administrative Structure

Chair: David Page

Vice Chair: Laine Thomas

The Vice Chair will work with the chair and associate chairs in committee formation, organization, and assignments. The Vice Chair will coordinate with the awards committee to nominate departmental faculty for university, SOM, and national awards. The Vice Chair will also provide oversight of departmental communications, including website and social media presence. The Vice Chair will assist the chair and administrators in budget and financial planning. The Vice Chair, in conjunction with the Associate Chair for Education and the education program DGSs, will provide oversight and global planning for education programs. Working with administration, the Vice Chair will guide annual salary equity reviews across divisions, assisting division chiefs within each division and work with the division chiefs in strategic hiring across divisions. The Vice Chair will also work with the Associate Chair for Faculty Mentorship and Development in mentoring, tenure, and promotion across divisions. The Vice Chair will also assist the Chair in reviews of division chiefs, education programs and leadership. The Vice Chair will work with the Chair and Associate Chair for Culture, Engagement, and Impact to emphasize inclusive excellence across all aspects of the department.

Associate Chairs

Associate Chair for Faculty Mentorship and Development: Huiman Barnhart

The Associate Chair for Faculty Mentorship and Development will be responsible for overseeing that junior and mid-career faculty have adequate mentorship, help further define and clarify our departmental Appointments, Promotion and Tenure (APT) process for tenure track and non-tenure track faculty, including rolling contract faculty. The Associate Chair will be responsible for working with junior and mid-career faculty to ensure they have an effective mentorship plan and team, ensuring that their mentorship team meets at least twice per year and that there is a clear, customized career plan for each faculty member that measures their progress relative to APT criteria. The Associate Chair will consult with the Chair, Vice Chair, and relevant Division Chief to discuss all faculty annually. To standardize and harmonize APT for B&B with the rest of the School and the University, the Associate Chair will work with the School of Medicine Basic Sciences Faculty Steering Committee, the University Office of Faculty Affairs, the University Academic Council, and other relevant bodies as appropriate. One of the goals for the Associate Chair will be to push for recognition for open science and academic activities that promote and contribute to open science and open data at Duke.

Associate Chair for Education: Steve Grambow

The Associate Chair for Education will be responsible for setting the educational mission for each of our education programs (Masters in Biostatistics, Ph.D. in Biostatistics, CRTP, MMCi), identify key strengths and weaknesses in our ability as a department to meet the growing need for quantitative training for the school, maintain and increase the scholastic and educational excellence of the current programs, define key opportunities for increasing our ties to like-minded faculty in other departments inside the School and across the University in biostatistics and data science (including machine learning, bioinformatics, biomedical informatics), and how to 'grow the educational pie' for ourselves, our trainees, and our colleagues across the School and the University. The Associate Chair will also collaborate and coordinate with the School of Medicine Vice Dean for Medical and Health Professions Education, the Office of the Graduate School, and the Directors of Graduate Studies (DGS) of sister programs across the School and University. In B&B, the Associate Chair will work with the existing DGSs, program staff, faculty and of course our current and previous students.

Associate Chair for Culture, Engagement and Impact: Roland A. Matsouaka

The Associate Chair for Culture, Engagement, and Impact serves as a key advisor to the chair (and partner to all the other associate chairs) to advance the University commitment to inclusive excellence by fostering a culture where people of all backgrounds can excel and thrive. The primary objective of the Associate Chair of Culture, Engagement, and Impact is to pro-actively enable and sustain an inclusive, welcoming, and supportive working and learning environment in which diverse perspectives and backgrounds are welcome within the Department of Biostatistics and Bioinformatics for faculty, staff, collaborators, and all learners. In support of this work, the Associate Chair for Culture, Engagement, and Inclusion also serves as a liaison to the School of Medicine Office for Culture, Engagement, and Impact.

Associate Chair for Research: Anru Zhang

The role of the Associate Chair for Research encompasses a range of responsibilities aimed at upholding the highest standards of scientific integrity and research quality within our department. The Associate Chair ensures that faculty and staff are aware of policies and procedures designed to maintain research excellence. The Associate Chair also serve as a liaison by overseeing conflict of interest and outside activity management plans issued by the Duke Office of Scientific Integrity. Additionally, the Associate Chair promotes a culture of compliance by ensuring that faculty and staff adhere to training requirements. Furthermore, the Associate Chair fosters a positive

research culture, ensures that best practices are followed to safeguard data quality and integrity, facilitates efficient and effective research processes, promotes collaborations to drive continuous improvement and enhance research quality, and facilitates faculty research development.

Division Chiefs:

Division of Biostatistics: Susan Halabi and Chris Lindsell

The Mission of the Division of Biostatistics is to lead in the application of quantitative methods in biomedical research that answer important questions and to promote the development of statistical methodology in complex problems arising from the diverse disciplines within the research community.

Division of Integrative Genomics: Andrew Allen

The mission of the Division of Integrative Genomics is to promote innovative and highimpact genomic research and education by providing a robust and diverse scientific environment through partnership, integrity, and vision.

Division of Translational Biomedical Informatics: Ben Goldstein

The mission of the Division of Translational Biomedical Informatics is to use data, analytics and modeling to improve our understanding of the health and health outcomes of our patients and our communities. We accomplish this goal through research in informatics and data science, by providing national and regional leadership in informatics and health data science, and by training the next generation of educators, practitioners, and leaders in informatics and health data science.

Directors of Graduate Studies (DGS):

PhD in Biostatistics Program: Sean O'Brien (DGS)

Master in Biostatistics Program: Jesse Troy (DGS), Greg Samsa (Associate DGS) Inter-departmental PhD program in Computational Biology and Bioinformatics (CBB): David Carlson (DGS)

Master of Management in Clinical Informatics: Ed Hammond (Director of MMCi)

Clinical Research Training Program: Steve Grambow (Director of CRTP), Jesse Troy
(Co-Director of CRTP)

Faculty Ranks and Tracks

Faculty with Voting Privileges (Regular Rank Faculty)

Professor, modified by Full, Associate, Assistant, with primary appointment in B&B

Medical Instructor

Joint Appointments. Joint appointments are secondary appointments for which B&B contributes financially to the appointee. Joint appointments may be conferred upon any individual holding a regular rank appointment in another department or unit of the university, and are made at the same level of seniority as the existing appointment. Joint faculty with at least 20% effort in B&B will have voting rights in B&B in accordance with their rank and track in their primary department.

Tracks for Faculty with Voting Privileges:

Basic Science Tenure Track: This is the current available tenure track for B&B. The tenure clock is seven years starting from the date of Duke hire.

Clinical Tracks

Track III (tenure track)

This is a historical clinical tenure track III and it is grandfathered in for existing faculty. It is no longer available for new hires.

Career Track (formerly Track V)

This is the non-tenure clinical track, formerly Track V. In consultation with the division chief and associate chair of faculty mentorship and development, faculty may declare to pursue a '**rolling contract**' within the Career Track. The general career track appointment is renewed yearly at the time of annual review.

Career Track with Rolling Contract

This is a special title granted by the department as an additional recognition for excellent performance and leadership in the Career Track faculty. Specific criteria can be found under **Promotion to 5-year Rolling Contract within Career Track.** Career track with 5-year rolling appointment is continuously (rolling) renewed for the next 5 years.

Faculty without Voting Privileges (Non-Regular Rank Faculty)

Basic Science Non-Tenure Track: Instructor, Assistant, Associate or Full research professor positions are currently only available under a non-renewable term limit. Appointments to this track are rare and are made at the discretion of

the department chair. The APT committee votes on the proposed appointment renewal.

Secondary Appointments (non-joint), modified by Full, Associate or Assistant. Secondary appointments may be conferred upon any individual holding a regular rank appointment in another department or unit of the university and are made at the same level of seniority as the existing appointment.

Adjunct Professor, modified by Full, Associate, or Assistant. Adjunct appointments may be conferred upon any individual holding a regular rank appointment or equivalent outside of the university, and are made at the same level of seniority.

Emeritus Professor, modified by Full, Associate, or Assistant.

Job Family 27 appointments. Refer to appointment guidelines, for example,

Postdoctoral Associate (Postdocs): Expected to extend from degree completion (typically PhD) to 5 years' experience and expected to follow Duke and B&B policies and procedures.

Research Scholar: Expected to be a one year temporary visitor. Typically used for faculty on sabbatical at Duke.

Research Scientist: Longer term position. PhD degree or equivalent, with 5 or more years' experience.

Research Scientist, Senior: Longer term position. PhD degree or equivalent, with 10 or more years' experience.

Governance

As a basic science department, we follow the <u>Duke Faculty Handbook Appendix E</u> that governs APT processes in Basic Science departments of the School of Medicine (referred to as the "research path" below). However, for faculty appointed in a clinical track, we follow the Duke Faculty Appendix E section that governs APT processes in Clinical Science departments (referred to as the "clinical path" below). Please consult these documents for guidelines, processes and governance. This document is intended to expand and provide additional guidance and specificity for our department.

Faculty Meetings

The department has monthly meetings scheduled on the first Friday of the month at noon. All regular rank faculty are expected to attend whenever possible. Departmental business, including presentations of appointments and faculty promotions, will be conducted during these meetings.

Standing Committees

Current members of the standing committees can be found in **Appendices**.

Appointments, Promotion and Tenure (APT) Committee

Mission: To oversee the appointments, reviews, promotions and tenure for all department faculty in compliance with the B&B departmental APT policy, the SOM APT policy, and the Duke University APT policy.

Please see Promotion Voting Procedures for specific APT committees for specific types of appointment and promotion.

PhD Admission Committee

Mission: To define the criteria and metrics for each incoming class; work with the DGSs, chair, and other educational program leadership to define the admissions goals for the PhD program; evaluate all applicants; and provide strategies to attract admitted students to the PhD program.

MB Admission Committee

Mission: To define the criteria and metrics for each incoming class; work with the DGSs, chair, and other educational program leadership to define the admissions goals for the MB program; evaluate all applicants; and provide strategies to attract admitted students to the MB program.

Academic Review Committee

Mission: The Academic Review Committee (combination of an Academic Performance Committee and an Honor Code Committee) is a joint committee that reviews student performance issues and putative episodes of student misconduct, broadly defined. The two mission statements are as follows:

The Academic Performance Committee reviews students exhibiting academic difficulties (as reflected by sufficient poor grades, per Program policies). Potential recommendations include no action, academic warning, academic probation, suspension or dismissal. For academic warning and probation, it will also prepare a remediation plan. Recommendations would be forwarded to those responsible for program oversight.

The Honor Code Committee reviews potential Honor Code violations including (but not limited to) cheating and plagiarism. Potential recommendations include no action, probation, suspension or

dismissal. Recommendations would be forwarded to those responsible for program oversight.

A quorum for the committee is three members. The committee reviews all students who are in danger of academic probation or go on academic probation and creates tailored remediation plans for each student. The committee (or assigned committee member as decided by the committee) will meet individually with students, discuss their case, and have one committee member assigned to oversee that student. Committee activities and recommendations are forwarded to the department chair, vice dean for education for the Master's program and the associate dean of academic affairs in the graduate school for the PhD program.

Faculty Awards Committee:

Mission: To identify institutional and professional honors and awards that are appropriate for our faculty, track the eligibility criteria for those opportunities, and nominate or encourage faculty applications for those honors and awards. The committee encourages nominations that promote the reputation and recognition of our faculty, our department, and our university.

Please see Appendices for a list of possible awards for eligible faculty.

Curriculum Committee

Mission: The mission of the curriculum committee is to ensure high quality classroom and learning experience for students by systematically and routinely evaluating courses, new course proposals, degree programs, proposed degree requirements for graduation, and by ensuring effective and efficient use of instructional resources relating to curricula.

Faculty Promotion

General Process for Dossier Preparation at B&B

During the faculty's **5**th **year** at the rank of Assistant or Associate Professor or when petitioned by the mentorship committee, the faculty's review committee will be formed to work with the faculty to prepare his/her promotion dossier. The review committee usually consists of that faculty member's mentorship committee and/or appropriate Duke regular rank faculty. The dossier will conform to the documents laid out in the Duke Faculty Handbook as appropriate for the track of the faculty member. The committee has the responsibility of reviewing the candidate's CV, statements, and other required materials as required by the track. Please see table below for the general process.

Timing for considering promotion

- Around 5 years at rank

Who to reach out to get this started

- Your mentoring committee, division chief, associate chair for faculty mentorship and development, or department chair

Who forms the review committee for your promotion

- Associate Chair for Faculty Mentorship and Development in consultation with division chief(s) and/or department chair. The review committee for promotion with tenure requires approval from School of Medicine.

Dossier preparation

- Candidate prepares the dossier including the CV in Duke format, development statement, and annotated bibliography / key contributions, etc., according to the requirements for the proposed promotion.

Refine and complete the dossier

 Work with your Review Committee (for non-tenure track only) and with Associate Chair for Faculty Mentorship and Development (for both non-tenure and tenure tracks) for feedback and revisions.

Departmental APT (DAPT) Committee votes to solicit Letters of Evaluation

- Upon receiving the recommendation from the Review Committee and the Associate Chair for Faculty Mentorship and Development that the dossier is ready to proceed, the Review Committee presents the case to the DAPT Committee. If the voting outcome is positive, it advances to the next step. In the event of a negative vote outcome, typically, the faculty candidate is expected to wait for at least 1 year before making another attempt.

Request for letters

 Request for Letters of Evaluation is coordinated by the DAPT Coordinator on behalf of the Review Committee.

DAPT Committee votes for promotion

 The Review Committee compiles an assessment report after receiving a sufficient number of letters and presents the case to DAPT. If the voting outcome is positive, it proceeds to the next step. In the event of a negative vote outcome, generally, the faculty candidate is expected to wait for at least 2 years before making another attempt.

Submission of the dossier to School of Medicine

- After successful DAPT Committee vote on the promotion, the DAPT Coordinator submits the complete dossier to School of Medicine with letter(s) from the DAPT chair and/or department chair

The following resources are for B&B faculty only:

Duke CV Format Template

Example Personal Statements for Career Track Promotion
Annotated Bibliography/Key Contributions Template
Example Dossier for Basic Science Tenure Track Promotion

As a general guide, the minimum expectation in terms of scholarship for promotion via the research path is shown below. For promotion via education or individualized path in career track, please refer to the <u>Career Track Promotion Guidance from the School of Medicine</u>. Note that work in the domains of advocacy, digital expression, inclusive excellence, and team science are recognized as potential alternative expressions of scholarship. Specifics of non-traditional scholarship should be described in the development statement or personal statement.

Table 1. General Guide in Scholarship in Promotion

Associate Professor	Full Professor	
Outstanding research contribution	Extended periods of outstanding research contribution	
Strong regional reputation	Contribution	
National recognition encouraged	Strong regional reputation National and international recognition encouraged	
≥ 20 publications career total	≥ 50 publications career total	
≥ 3 mixture of significant publications (first or senior author or middle author team science publications)/significant alternative scholarship contributions	≥ 5 mixture of significant publications (first or senior author or middle author team science publications, with emphasis of those since last promotion)/significant alternative scholarship contributions	
Selection of 5 key contributions (publications /important contributions)	Selection of 10 key contributions (publications or important contributions)	

While we have equally high expectations for faculty in both tracks, the expectation for faculty in the clinical path is that the faculty serves as the lead or supervising statistician or informatician in the publications or alternative scholarship as listed above. While traditional scholarship is recognized by first or senior author papers, the clinical path faculty can count middle author papers via the team science framework or via significant alternative scholarship where the role and creative contributions of the faculty member were demonstrably critical and clearly justified. General requirements for evaluation letters are summarized in Table 2.

Table 2. Requirement of Evaluation Letters

Promotion Track	Min # External letters	Min # Internal Letters	Center Director Letter	Min # of total letters
Basic Science Tenure Track	6	NA	NA	6
Career Track (Associate Professor)	At least 3	Up to 3	1 if applicable	6
Career Track (Full Professor)	6	NA	1 if applicable	6

Promotion for Faculty in Basic Science Tenure Track

The promotion in this track follows the guidelines set forth by the provost office. Detailed guidance for this process and dossier preparation is provided at the <u>Faculty Affairs</u>

<u>Appointment, Promotion and Tenure page.</u>

In this track, promotion to associate professor and the granting of tenure generally occurs concomitantly, although a two-step separate process is possible. Tenure review should begin no later than the beginning of the seventh (7th) year on the tenure track, and the candidate must be notified of the result of this review prior to the beginning of the eighth (8th) year. Extended clocks for leave and other situations are detailed in the faculty handbook. Please see the Duke Faculty Handbook Appendix E School of Medicine - Basic Sciences section for general guidelines and procedures in this track. A complete promotion dossier by the start of the seventh year is mandatory for tenure-track faculty. The detailed guidance for the complete dossier is provided at the Faculty Promotion and Tenure page. The evaluation is based on the areas of Research and Scholarly Productivity, Service, Teaching and Education.

The overall Basic Science Promotion and Tenure timeline can be found here.

The process starts with the department chair informing the faculty member to begin the dossier preparation. A review committee is nominated by the department chair. The review committee must include at least one member from outside the primary reviewing unit, appointed by the Dean of the school where the dossier will be reviewed. The department chair should not serve on the review committee and should inform the candidate of review committee's membership. After the appropriate department APT committee votes to move forward with letters, the review committee will meet and decide on a list of arms-length evaluators. The candidate may—but is not required to—suggest no more than three evaluators and may identify potential evaluators not to be contacted. A minimum of six external letters is required that are solicited by the review committee. Candidate is required to present his/her work in a public seminar within the

six months prior to final consideration of their dossier by the appropriate department APT committee. The review committee must prepare a report signed and dated by all members including the following components: (a) Strength and Weaknesses; (b) The composition of the review committee; (c) External evaluators and evaluations; (d) Relationship and significance of the relevant broad field and subfield to the discipline; (e) The significance of the candidate's research agenda in relation to recent intellectual developments in the field; (f) Candidate's scholarly trajectory to date, including specific contributions contained in respective published works, their influence on the field and the breadth of the candidate's interests; (g) Disputes in the field; (h) Nature of scholarly productivity in the discipline; (i) Individual members of the appropriate peer group; (j) Teaching; (k) Service. This report must be submitted to the voting APT faculty prior to its deliberations and vote.

Because the provost APT committee does not meet during the summer months, the following review cycles are recommended for existing basic science tenure track faculty. The timeline* starting in July will be used for new hires of tenure track faculty.

Table 3. Promotion Timeline for B&B Basic Science Tenure Track Faculty

Review Committee formation for basic science tenure track faculty	Date materials due for B&B review committee	B&B Departmental APT Review	Complete Dossier Due to the Dean	Effective Date
January	February 1	 April Faculty Meeting to Vote for Soliciting Outside Letters August Faculty Meeting to Vote for Final Approval 	September 1	March 1
March	April 1	 June Faculty Meeting to Vote for Soliciting Letter October Faculty Meeting to Vote for Approval 	November 1	May 1
July*	August 1	 September Faculty Meeting for Soliciting Outside Letters December Faculty Meeting to Vote for Final Approval 	January 1	July 1

^{*}For new faculty hires

Promotion for Faculty in Career Track

The promotion in this track follows the guidelines set forth by Clinical Sciences APT, School of Medicine. Please see Duke Faculty Handbook Appendix E School of Medicine - Clinical Departments for general guidelines and procedure in these tracks. In general, the promotion dossier includes the following documents prepared by the candidate and evaluated by the review committee: CV, development statement, key papers/significant contributions (5 for promotion to associate professor and 10 for promotion to full professor) and a document with descriptions of candidate's contributions in these key papers. For Career Track faculty a minimum of three external letters is required for promotion in this track, with a total of six letters required, a public seminar is encouraged but not required. Internal letters are obtained from Duke Faculty with a preference for the candidate's collaborators. If the candidate belongs to a center or institute in Duke, an internal letter from the director of the center or institute is also required.

The process starts with the department chair informing the faculty member when their review begins. The review committee is nominated by the department chair. The department chair should not serve on the review committee and should inform the candidate of review committee's membership. The review committee must prepare a report signed and dated by all members including the following components: (a) Overall summary of the candidate's strengths and weaknesses, productivity, reputation, and trajectory; (b) The composition of the review committee; (c) List of external evaluators and summary of evaluations; (d) The significance of the candidate's scholarship in their field; (e) Teaching; (f) Service. This report must be submitted to the voting APT faculty prior to its deliberations and vote.

The following expectations for Career Track Faculty are intended to supplement the Duke University School of Medicine's promotion and tenure policies described in the Faculty Career Track guidance. The timing of promotion in career track is flexible, allowing faculty to progress at their own pace. There are three pathways for promotion of career track faculty in B&B: Research focus, Education focus, or Individualized focus (with input and approval of the department chair or division chief). Please refer to the above School of Medicine document for promotion via education focus or individualized focus.

Faculty evaluation is based on the areas of *Research and Scholarly Productivity*, *Service, Teaching and Education*, typically with excellence in one area and satisfactory performance in the other two areas. Successful faculty will perform consistently in each of these areas (per annual review) and demonstrate cumulative success to be ready for promotion. Expectations are described in more detail below:

Research and Scholarly Productivity: Successful research and scholarly productivity
will be reflected by consistent funding on research projects and a strong publication
record with generalizable knowledge.

While the minimum expectation in terms of scholarship is noted earlier (Table 2) as a general guidance, the expectation is that the faculty member is the lead or supervising statistician or informatician. Traditionally this is recognized by placement as second or penultimate author, but it can also be evidenced by a statement from the faculty member or from the lead or senior author.

In addition to quantity, we highly value the excellence and innovation of faculty's contribution in research funding and scholarly output. Faculty should be able to identify important aspects where they contributed to get the research projects funded, and to identify important publications where they contributed to statistical methodology, oversight or problems solved. The faculty take full responsibility for the methodological quality and integrity of authored or co-authored publications. Engagement in open science, open data, and code and data sharing is strongly encouraged and should be noted in promotion materials.

Examples of excellent research work can be reflected by grant impact scores, grants funded as PI or co-PI, work published in high impact journals as first/second/third author or a senior author position, invited presentations, recognition from peers, leadership/scientific expert/service roles as recognition of their research impact, hindex of papers, etc. Relevant publications include peer-reviewed journals in clinical, statistical, epidemiology or statistical education and professional dissemination (e.g. *Chance* magazine, CRAN packages, Bioconductor packages, GitHub code, videos). Relevant topics include tutorials, reviews, new methods, simulation studies, viewpoints, open data / limited dataset repositories or contributions, editorials on statistics, software, etc.

Examples of innovation in the field of Biostatistics and Bioinformatics can be through the following:

- a. Novel application or advancement of methods in clinical research. For example:
 - i. Novel uses of new or existing methodology, insightful problem formulation, or innovative study design as documented through relevant, collaborative publications.
 - ii. Making it easier for clinical audiences to use and understand new methods as documented through publication of editorials, tutorials, review articles, etc.
 - iii. Development of innovative software, diagnostics, graphics or tools to facilitate application and interpretation of new methods as documented through software, tutorials, workshops, courses, seminars, etc.

- iv. Alternative expressions of scholarship as defined here.
- Methodological Development
 Independent or collaborative development of new methodology as documented through grant funding, publications and/or presentations at meetings.
- c. Leadership of a statistical research group can also demonstrate novel approaches and/or structures to advance more effective collaborations and improve the infrastructure to support clinical or basic science research. This is different from management or oversight of an existing research group, in that it requires demonstrating and documenting innovative and successful approaches to enhancing reproducibility, supporting team science, and improving the quality of collaborative research.
- 2. Service: Faculty are expected to contribute to the department, university, nation and their field(s) through a diverse set of service activities.

Examples of service at different levels may include:

a. Institutional

Committees: Participation in committees in the department or at Duke Mentorship: Serving as a formal mentor to junior faculty and/or staff statisticians

b. National/International level

Presentations at conferences or other national platforms (contributed or invited)

Member of a Data Safety and Monitoring Committee

Organization of conferences/sessions

Member of national task force or committee

Grant reviewer at NIH/NSF or other agencies or foundations

Editor or member of editorial boards

Reviewer for scientific journals

Contributing role in professional societies

- Leadership in service by designing novel approaches, architecture, and/or infrastructure creation to support the delivery of research and health care.
- 3. Teaching and Education: Faculty are expected to contribute to the department, university, nation and their field(s) through a diverse set of teaching and educational activities.

Examples of teaching and education at different levels may include:

a. Institutional

Teaching in one of the formal B&B education programs
Contributing formal statistical training for B&B staff statisticians
Serving or chairing on MS (or PhD) Thesis committees
Supervising PhD students on research rotations
Mentoring fellows/postdocs/staff/students

b. National/International level

Short courses at professional conferences or other universities/organizations Guest lectures in teaching/training/education forum outside Duke.

c. Leadership in education by designing novel approaches and/or structures to support the delivery of outstanding education. This is different from teaching a class or maintaining an existing education program, but requires demonstrating an innovative approach to growing capacity and quality of education that is responsive to the goals of the department and needs of the students.

Promotion to 5-year Rolling Contract within Career Track

Faculty may choose to pursue the **5-year rolling contract** at the time for promotion to associate professor or to full professor if they *additionally* demonstrate consistent ability as **a leader in one of the three areas**: research and scholarship, service, teaching and education. External letters will be solicited for independent evaluations of the 5-year rolling contract at the time of promotion. The 5-year rolling contract is an additional departmental recognition for excellent performance and leadership for career track faculty.

Leadership in research and scholarship may be shown by extended periods of excellence in methodological research in a particular field and/or consistent ability to secure impactful research funding in positions such as principal investigator, coprincipal investigator, or similar.

Leadership in service may be shown by extended periods of excellence on establishing service approach or infrastructure with scholarly contribution through peer-reviewed publications/professional dissemination or extraordinary administrative roles with innovative service approach or infrastructure creation at the national/international level.

Leadership in teaching and education may be shown by extended periods of excellence on establishing teaching and educational methods with scholarly contribution through peer-reviewed publications/professional dissemination or extraordinary administrative

roles with innovative teaching approach or education infrastructure at the national/international level.

Table 4. Different Expectations for 5-year rolling contract vs. regular career track faculty

Activity	5-year Rolling Contract	Regular Career Track
Peer-reviewed publications	Yes	Yes
First or senior author on peer-reviewed publications or professional dissemination	Expected with important and original contributions to the candidate's chosen leadership area	Expected
PI of independent research group, NIH, non-NIH research grants/contracts	Expected	Encouraged
Service to B&B and Duke	Expected	Expected
Service with National Recognition, e.g., NIH study section, Journal Editor or Editorial Board member, Chair of National Meeting Sessions, Invited Speakers	Expected	Encouraged
Teaching	Supportive but strongly encouraged	Encouraged

Timeline: The overall career Track Promotion and Tenure timelines can be found on the Clinical Sciences Promotion Process site.

Promotion for Faculty with Joint, Secondary, or Adjunct Appointments:

For faculty with joint appointment where B&B is their primary department, they will be promoted per the above specified criteria. For faculty with a joint appointment in B&B where B&B is not the primary department, a B&B faculty is required to represent the B&B in that faculty's review committee for promotion in the primary department and promotion requires the support from the B&B department chair. For faculty with secondary or adjunct appointments where B&B is not the primary department, they will be recognized with the same rank at B&B when the promotion at the primary department becomes official and they will be reviewed every 5 years in B&B.

Composition of Department APT Committees with Voting Rights

The quorum for a meeting is five faculty members or half of the eligible APT committee whichever is greater. All votes for promotions and secondary/adjunct appointments require a two-thirds majority from the relevant committee who are in attendance or voting with absentee ballots. Faculty unable to attend can provide the committee chair with an absentee ballot before the meeting. Faculty offers will be based on rank order vote with a cutoff.

For new faculty appointments, the appointment committee consists of all regular rank faculty with voting rights in the department.

For promotion to Associate Professor with Tenure, the APT committee consists of all tenured faculty with voting rights at the rank of Associate Professor or higher.

For promotion to Full Professor with Tenure, the APT committee consists of all tenured faculty with voting rights at the rank of full Professor.

For promotion to Associate Professor without Tenure, the APT committee consists of all faculty with voting rights at the rank of Associate Professor or higher.

For promotion to Full Professor without Tenure, the APT committee consists of all faculty with voting rights at the rank of full Professor.

For promotion to Associate Professor with a 5 Year Rolling Contract, the APT committee consists of all tenured or rolling contract faculty with voting rights at the rank of Associate Professor or higher.

For promotion to Full Professor with 5 Year Rolling Contract, the APT committee consists of all tenured or rolling contract faculty with voting rights at the rank of full Professor.

Faculty Hiring and Appointment Procedure

For new hire, the following procedure is followed except for scenarios of retention and special hire where external candidates are not solicited through a competitive search:

- Search committee is formed
- b. Job position is openly posted, advertised, and available for at least a month
- c. Search committee meets to select several candidates to come for interview and to give a departmental seminar
- d. Search committee collect faculty input and put forth recommendation to the department for voting with the following documents from the candidate: CV, six letters of reference for associate or full professor appointment (no letters are required for new faculty appointment at the rank of assistant professor), research statement and teaching statement if interested in education and training
- e. Department APT committee meets and provides appointment recommendation to the Chair

f. With positive recommendation, the Chair sets forth the terms of the appointment in the offer letter

For joint appointment, the above procedure is followed if it is an outside hire. For existing Duke faculty in another department, following procedure is followed

- a. The applicant submits the following documents: CV, research statement and teaching statement if interested in education and training
- b. Six letters of reference for associate or full professor appointment (no letters are required for new faculty appointment at the rank of assistant professor) are required if B&B is the primary department
- c. The applicant gives a departmental seminar and has an interview with department faculty
- d. Department APT committee meets and provides appointment recommendation to the Chair
- e. With positive recommendation, the Chair sets forth the terms of the appointment in the offer letter
- f. The appointment where the B&B is not the primary department will be reviewed and renewed every five years by the APT committee based on current CV and statement of contributions to B&B during their last appointment

For secondary or adjunct appointment and renewals. The secondary appointment is for faculty who have a regular rank appointment in another department or unit of the university while the adjunct appointment is for faculty outside of the university. Any B&B faculty can initiate recommendations for such appointments. The candidate must demonstrate expertise relevant to B&B, e.g. in biostatistics, integrative genomics, or translational biomedical informatics; must contribute to the intellectual and educational activities that benefit the department. The following procedure is followed:

- a. A regular rank B&B faculty with voting rights must nominate the candidate to the Chair and relevant Division Chief(s). The nomination packet must include the candidate's recent CV, research statement, and teaching & mentorship statement and a statement of relevance of the candidate's expertise to and desired involvement in the B&B department. Assent to the nomination must be given by the relevant Division Chief(s) and Chair before the candidate can be brought before the faculty for a confirmation vote. If the faculty candidate is a new hire in other departments at Duke, a prior seminar presentation by the candidate is generally recommended.
- b. The department APT committee meets and provides appointment recommendation. The secondary or adjunct faculty is expected to participate in B&B activities that benefit the department.

- c. With positive recommendation, the Chair sets forth the terms of the appointment in the offer letter
- d. The appointment will be reviewed and renewed every five years by the APT committee based on current CV and statement of contributions to B&B during their last appointment.

For emeritus faculty status. Regular rank faculty members who retire at age sixty-five or over, or who have served the university for at least ten years can apply for the emeritus title of the same faculty rank they held at retirement. We follow the <u>Emeritus Guidance</u> of the School of Medicine. Benefits of emeritus status can be found in Chapter 4 of the Duke University Handbook.

The following procedure is followed for an emeritus appointment in B&B:

- a. About 6 months before retirement, the faculty requests for an emeritus status by writing a letter to the department chair along with a recent CV. In the letter, please provide some details on how you will continue to collaborate with the department/school of medicine. Please also highlight your past accomplishments in at least two of the following areas
 - Impactful advances in original research and/or
 - Impactful contributions to the educational mission, including mentoring the next generation of scholars, researchers, and clinicians, and/or
 - Advances in the administrative operations of the institution
- b. The department APT appointment committee meets to discuss the case and vote for recommendation for the emeritus status or not.
- c. With positive recommendation, the Chair writes a letter to the dean for the formal request of faculty's emeritus status.
- d. The emeritus status becomes official after it is awarded by the Board of Trustees.
- e. Faculty's emeritus status will be reviewed periodically by the APT committee.

For primary appointment transfer within Duke. While it is expected that new appointments in B&B will generally happen through national searches, it is possible for a Duke faculty member to request a transfer of appointment to a different track or to a different department. B&B primary or secondary faculty may request a transfer within B&B with assent from their division chief(s). We expect that such transfers to be rare. The frequency of such transfers are limited to two times within Duke and there is at least 3 years apart between multiple transfers.

If a faculty member seeks to transfer out of B&B to another department, the faculty member is expected to give notification to the department Chair with ample notice to facilitate fulfillment or transfer of obligations this person has to B&B.

If a faculty is hired under undifferentiated track, declaration of the track is best implemented near the start of the faculty's promotion process.

Tenured faculty may choose to move to be career track faculty at any time with Division Chief's assent. This may be best implemented at the time of the faculty's next promotion.

For appointment transfer from career track to tenure track or into B&B from other departments, the transfer is contingent on the availability of the slot, which is negotiated between the B&B Chair and the Dean of School of Medicine. Move from career track to tenure track is considered to be a special case and it requires the APT committee approval. The candidate is required to submit a research statement (and a teaching statement if interested in education), an updated CV, and give a seminar. The APT committee then votes on the proposed appointment transfer and if approved, the normal institutional appointment process is followed, i.e., we send the full tenure case and a chair-to-dean letter to the dean, who would then write a letter and send everything to either Provost's APT or SoM Clinical APT. Additional APT vote may be required to determine the requested rank.

For research faculty appointment. For a research faculty appointment, the term is fixed. This appointment type is infrequent, e.g., for exceptional postdocs. The initial appointment is at the discretion of the chair. For a research faculty member to request a renewal, they must submit a research statement (and a teaching statement if interested in education), an updated CV, and give a seminar. The APT committee votes on the proposed appointment renewal and the normal institutional appointment process is followed. Notably, individuals in this faculty role do not possess voting rights within the department.

Faculty Mentoring

Faculty mentoring is an important tool for us to support each other and enhance our success as individuals and as a department. Successful mentorship programs improve the morale, success and professional satisfaction of all who participate, whether as mentees or mentors. Good mentorship also clarifies expectations for promotion and reduces anxiety and uncertainty for junior faculty as they approach and go through promotion. It is expected that every junior faculty member (Assistant Professor) will have an active and engaged mentor committee that consists of three mid-career or senior faculty. Mid-career faculty may have a formal mentor or a mentor committee. At the committee's discretion, the faculty mentee is encouraged to seek input from the committee members formally or informally. Each mentor committee will choose a chair,

and that individual will write an annual assessment of the mentee and their progress toward their next promotion, make recommendations for awards and special recognition, and as necessary work with the mentee to address any perceived shortcomings relative to their current trajectory. As part of the annual deliberation, the progress of the faculty mentor toward their promotion, opportunities for recognition, and recommendations for the faculty member will be discussed.

At the minimum, the committee should carry out the following activities annually with the committee chair taking the lead. The dates of the annual meetings should be reported to the Associate Chair for faculty mentorship after it occurs for tracking and documentation purposes. If concern or disagreement arises around recommendations by the mentoring committee, then the division chief or associate chair should be consulted.

Table 5: Mentoring Activities

Activities	Who	When	Logistics and Purpose
Committee mentoring	Committee members and faculty mentee	In the Fall between September and October	The department staff schedules the mentoring committee meeting; the faculty mentee to provide CV at least two weeks before the meeting; committee members to provide suggestions and advice for career advancement.
Assess Progress	Committee members without mentee	In the Spring between April - June	The department staff schedules a committee meeting without the faculty mentee. The chair asks the faculty mentee to provide updated CV and annual activities report. The committee to write an annual assessment mentor letter (see template and example in Appendices) for the mentee.
Feedback with division chief	Committee chair, division chief(s), faculty mentee	April - June	The division chief schedules a meeting with the faculty mentee for an annual meeting to discuss progress, feedback and future goals.
Every third-year progress report to the department APT committee	Committee chair	Regular APT meetings	After the 3 rd annual meeting with the division chief(s) and faculty mentee, the mentee provides a personal statement and CV in Duke format for mid-term review by the APT committee.
Preparation and Presentation for mentee's promotion	Committee members and faculty mentee	Determined by promotion timeline	Assist faculty mentee to prepare documents needed for promotion with consultation of associate chair for faculty mentorship and development. Solicit needed outside and internal letters of evaluation. As needed, the chair may also enlarge the committee for the purpose of preparing the promotion materials.

Guidelines for Mentors and Mentees

For Mentors:

Support of Mentee

- Maintain a relationship with the mentee based on trust and mutual respect
- Help the mentee identify their strengths and interests
- Help the mentee remain focused on achieving their professional goals, in a changing world
- Help the mentee reframe **barriers into opportunities** and new avenues
- Celebrate the mentee's successes!
- Help the mentee strategically identify and pursue opportunities, e.g., funding opportunities such as NIH FOAs, training opportunities, datasets, potential research collaborators, etc., in research and collaboration that are aligned with short- and long-term goals
- Encourage and be an advocate for the mentee. Examples are below:
 - Attend meetings, seminars, class teaching where the mentee is presenting and provide constructive feedback
 - Elevate the visibility of their work within the department, Duke and externally
 - Overcome challenges and rejection. Mentors can share experience and habits that help cope with rejection and overcoming challenges the mentees face
 - Encourage and support mentee's interactions and collaborations with other faculty from whom they might learn and benefit

Committee Expectations

- Respect the confidentiality of discussions with the mentee
- **Establish guidelines** at the beginning (and revise over time) defining how often or when you would meet on a routine basis. Below are minimum expectations:
 - Meet with the mentee at least once a year (in Fall) for mentoring activities
 - Meet with the mentoring committee once a year (in Spring) and assist the mentoring chair to complete the annual evaluation of the mentee
- Assist the mentee in defining developmental goals working toward promotion.
 Examples might include presenting at meetings, publishing new work in a journal, applying for funding, applying for honors/awards, participating in departmental/university/national service, teaching, developing new coursework. The goals should be achievable, included in the yearly expectations for the mentee with stretch goals noted.

- The mentoring **committee chair** is expected to ensure the **scheduling** of committee meetings and the completion of the **annual evaluation** of the mentee.
- The committee chair is responsible for evaluating and maintaining a productive, supportive, positive dynamic with the mentee and the committee mentors
- The **completed annual evaluation** is **shared** with the mentee first, then with the Division Chief, and finally the Chair, with opportunity for refinement.



Figure above depicts a triangle with 4 layers of expectations of the mentoring committee. Built on a foundation of trust, the committee is charged with actively listening and encouraging, sharing expertise and experience, and (at the top of the triangle), advocating on behalf of the mentee.

Expectation of Mentees

- A willingness to openly discuss and examine career goals
- A willingness to openly discuss scholarly expertise, interests, approaches
- An openness in discussing your own realistic developmental trajectory
- Take responsibility for your own career development
- Taking **productive advantage** of the **expertise**, **experience and wisdom** of your mentor committee. **Solicit feedback** regularly from your mentors, including how to communicate even better and address remaining needs.
- Prepare your materials and issues and questions you want to discuss prior to meeting.
- **Keep your committee informed!** Follow-up on your progress, barriers to achieving your goals and of course notify the committee of your successes!

Grant Support Resources

Applying for grants as principal investigators can be an important component in faculty career development. The B&B holds regular grant support meetings to discuss faculty's ideas for grants and to provide feedbacks on faculty's need on preparation of grants. Please email your idea to the Associate Chair for faculty development and mentorship for scheduling at these meetings. To assist faculty to prepare various types of grants, sample research strategies for various types of grants are available via B&B Faculty box folder. Other components, such as facilities and resources, of the grant can be obtained from or managed by the grants management team.

Examples of the full package of some submitted grants are available upon request by emailing the Associate Chair for faculty development and mentorship. Faculty are expected to keep all grant-related information within the department only.

The Office of Research Development at the School of Medicine provides consultation and editing services for individual investigators under three circumstances: (1) the individual is put forward by the department chair or division chief; (2) the individual is a recipient of Bridge Funding from the School of Medicine; (3) the individual has participated in a complex grant that is facilitated by the Office of Research Development. Additional information can be found at Services for Individual Investigators.

Expectations for Funding and Teaching

Faculty are expected not to exceed 95% external support to their salary. For faculty who teach in our MB and PhD educational programs, an annualized effort is provided for teaching each course per year. Specific details can be found in Appendices. For faculty who receive effort from the B&B on methodology and grant development, it is expected that manuscript submission or grant submission are documented in their annual activities related to the effort. Furthermore, the faculty mentee should inform his/her mentoring committee about the percent of effort, duration of the support, and the goal and plan for receiving such support. For faculty who serve as dissertation advisors for PhD students, it is expected that the advisors take the responsibility to provide or find funding for their student advisees after their first year. The funding includes the tuition (typically reduced under research assistant status), stipend and fringe. It is expected that advisors will have either grant names or account codes that will cover the student's funding for at least 3 years, or a sufficient funding track record and plan for covering the student's funding. There is no financial obligation in serving as a master's student thesis advisor.

Culture, Engagement, and Impact

The Department of Biostatistics & Bioinformatics recognizes that the culture of excellence and the diversity of its community – including faculty, trainees, staff, and students – is an essential component of our mission to improve biomedical research and human health through the application of quantitative science and the incorporation of innovative technologies. The Department is committed to proactively fostering an inclusive environment in which diverse perspectives and backgrounds are welcome and thrive. Specifically, we recognize and embrace our shared humanity, strive to see each of us live up to our full potential as scientists, as educators, as trainees, as managers, as administrators, as members of society and our community. We celebrate each other's successes, strengthen each other in adversity, and recognize our independent as well as shared ambitions. More information can be found on the B&B Culture, Engagement, and Impact webpage.

There are a number of resources for reporting concerns including the Associate Chair for Culture, Engagement, and Impact, as well as leaders and HR representatives within the department, as well as the Office for Institutional Equity (OIE https://oie.duke.edu/how-we-work/reporting-process/). Per Duke Policy "If an individual discloses alleged misconduct to a Duke employee who is a "responsible employee" (e.g. faculty, employees with teaching or supervisory authority and graduate students with teaching or supervisory authority, among others), the responsible employee is required to consult with OIE about an appropriate response. While a responsible employee is required to consult with OIE on behalf of others, the individual(s) disclosing the alleged misconduct can decide whether to report behavior that they personally experience. The purpose of reporting is to ensure safety and prevent further harm, understand the scope of the problem, offer support resources, and explore resolution options. Even if an individual chooses not to move forward or participate in an adjudicative or disciplinary process (through Duke or law enforcement), they can contact OIE for information and assistance with accessing support measures, such as changes to academic, living, transportation, and working situations."

For confidential advice or support, the Ombuds office provides a range of services.

Professionalism

Duke University and the School of Medicine are committed to supporting a climate of professionalism in which your career and the careers of all our faculty, staff and trainees can thrive. This commitment is codified in the <u>Statement on Faculty Professionalism</u>. Please read this carefully as your faculty appointment and promotions are contingent

upon your compliance with all Duke policies, including the Statement on Faculty Professionalism.

Faculty Grievance

While in an ideal world faculty grievance would never happen, we recognize that grievances do occur and outlining a clear path for grievance resolution is important. For the department, grievance resolution is a specific example of support and advocacy for our faculty. There are several resources for faculty grievances. The first level is talking with your division chief and seeking to find a resolution. The second level is talking with the Associate Chair for Faculty Mentorship and Development or the Associate Chair for Culture, Engagement, and Impact, depending on the nature of the grievance. The third level is the departmental Chair. Note that these are all for internal grievance resolution. This in no way prohibits you from engaging in other forms of grievance resolution, including reaching out to the Duke Faculty Ombudsperson. You may also find Duke Resources for dealing with misconduct in the workplace in Appendices.

Scientific Culture and Accountability Plan (SCAP)

As researchers at Duke University, we are operating in highly specialized and collaborative environments, which means that discussion and implementation of practices for maintaining scientific integrity are of critical importance. As part of the University expectations for all faculty engaged in research, we need to attest to the Science Culture and Accountability Plan (SCAP). The Lead Research Quality Administrator and the department chair are charged to ensure all faculty are compliant.

Cited and Useful Links

Annotated Bibliography/Key Contributions template

Appendices

Appointment guidelines

B&B Culture, Engagement, and Impact webpage

B&B Faculty Box Folder

Career Track Guidance

Chapter 4 of the Duke University Handbook

Duke Faculty Handbook

Duke Faculty Ombudsperson

Emeritus guidance in the School of Medicine

Example Personal Statements for Career Track promotion

Example Dossier for Basic Science Tenure Track promotion

Expressions of Scholarship Framework

Faculty Affairs office

Sample research strategies

Science Culture and Accountability Plan

Services for Individual Investigators

Statement on Faculty Professionalism

The previous annual versions of the faculty handbook are available in the <u>B&B Faculty</u> <u>Box Folder</u>.