

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

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Preface

This document is to supplement the [Duke Faculty Handbook](#). 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 [Dr. Huiman Barnhart](#) or [Dr. Warren Kibbe](#).

About B&B

The Department of Biostatistics and Bioinformatics (B&B) in the Duke University School of Medicine is committed to improving biomedical research and human health through the development and application of quantitative science and innovative technologies. Our faculty engage broadly across the School, the Duke Health System, the University, our region and the world to transform healthcare by conceptualizing, developing, designing and validating appropriate methods, algorithms, tools and applications, advocating for the appropriate application of quantitative science, and training and educating the next generation of informed, ethical leaders in biostatistics, genomics, biomedical informatics, and health data science.

Our goals are to:

- Provide national and regional leadership in biostatistics, genomics, biomedical informatics, and health data science
- 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
- Provide an inclusive, safe, tolerant, and respectful learning, living, working environment for all our staff, students, and faculty

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).

B&B recognizes that the diversity of its community is an essential component of our mission and we are committed to proactively fostering an inclusive environment in which diverse perspectives and backgrounds are welcome and thrive.

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, our trainees as we carry out our research, 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: Warren Kibbe

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 chair and administrators in budget and financial planning. The vice chair, in conjunction with the Associate Chair for Education and the education program DGSes, 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 in conjunction with the chair and associate chair for diversity to emphasize diversity and inclusion in 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 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 DGSes, program staff, faculty and of course our current and previous students.

Associate Chair for Equity, Diversity and Inclusion: Laine Thomas

The Associate Chair for Equity, Diversity and Inclusion (EID) will serve to pro-actively foster an inclusive environment in which diverse perspectives and backgrounds are welcome within the Department of Biostatistics and Bioinformatics for faculty, staff and learners. In support of this work, this individual will serve as a liaison to the [School of Medicine Office of Equity, Diversity & Inclusion](#).

Division Chiefs:

Division of Biostatistics: Susan Halabi

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 a diversity of disciplines within the research community.

Division of Integrative Genomics: Andrew Allen

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

Division of Translational Biomedical Informatics: Warren Kibbe

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: Greg Samsa (DGS), Jesse Troy (Associate DGS)

Inter-departmental PhD program in Computational Biology and Bioinformatics (CBB): Raluca Gordan (DGS)

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

Clinical Research Training Program: Steve Grambow (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 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)

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 (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. May be used for faculty on sabbatical at Duke, for instance.

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

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

Governance

As a basic science department, we follow the Duke Faculty Handbook Appendix J that governs the Basic Sciences in the School of Medicine. However, for faculty appointed in clinical tracks, we follow the Duke Faculty Appendix L that governs the Clinical Sciences for their promotion process. 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](#).

Appointment and Promotion (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 DGSes, 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 DGSes, 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.

Committee on Equity, Diversity and Inclusion:

Mission: To foster an environment of fairness, empowerment, tolerance, respect and safety, and cultivate a diverse and inclusive faculty, staff and student body. We proactively work to strengthen our commitment to racial and ethnic equity, and inclusivity without our department, across campus and in the Durham Community.

Find more information on the [B&B Equity, Diversity and Inclusion webpage](#).

Faculty Promotion

General Process for Dossier Preparation at B&B

During the faculty's **5th 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.

Table 1. General Process of B&B Promotion	
Timing for considering promotion	Around 5 years on the 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
Dossier preparation	Candidate prepares the draft on Personal statement, CV in Duke format, Key Contributions
Refine and complete the dossier	Working with your Review Committee for feedback and revisions
Departmental APT (DAPT) votes for soliciting letters	After the recommendation of the Review Committee and the Associate Chair for Faculty Mentorship and Development that the dossier is ready, the review committee presents the case to DAPT
Request for letters	A departmental staff sends out requests of letters on behalf of the Review Committee
DAPT votes for promotion	Review committee prepares assessment report after receiving sufficient number of letters and presents the case to DAPT
Submission of the dossier to School of Medicine	After successful DAPT vote on the promotion, a departmental staff 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](#)

After the committee decides that the materials are of sufficient merit, they will work with the Associate Chair for Faculty Mentorship and Development to schedule an appropriate department APT committee meeting for review and vote. The appropriate APT committee will vote on whether to move forward with soliciting external and internal letters. After a majority vote of moving forward, the review committee will solicit external and internal letters and document the soliciting process. After a sufficient number of letters have been obtained, the review committee will work with the Associate Chair for Faculty Mentorship and Development to schedule an appropriate APT committee meeting for final consideration of the dossier. The review committee will present the candidate's case to the appropriate APT committee with a written summary of the candidate's accomplishments and external evaluations. After deliberation among the APT committee members, an anonymous vote is taken and the outcome is announced by the APT committee chair. As a general guide, the minimum expectation in terms of

scholarship for promotion via research path is shown below. For promotion via education or individualized path in career track, please refer to the [document from the School of Medicine](#). Please note that alternative (non-traditional) evidence of scholarship, such as advocacy scholarship, digital scholarship, team science scholarship, as well as Justice, Equity, Diversity, Antiracism and Inclusion (JEDAI) scholarship are valued with [frameworks](#). Specifics of non-traditional scholarship should be described in the intellectual development statement or personal statement.

Table 2. General Guide in Scholarship in Promotion

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

While we have equally high expectations for faculty in both tracks, the expectation for clinical track faculty is that the faculty is 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 track 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 requirement for evaluation letters are summarized in Table 3.

Table 3. 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	3	2	1 if applicable	6

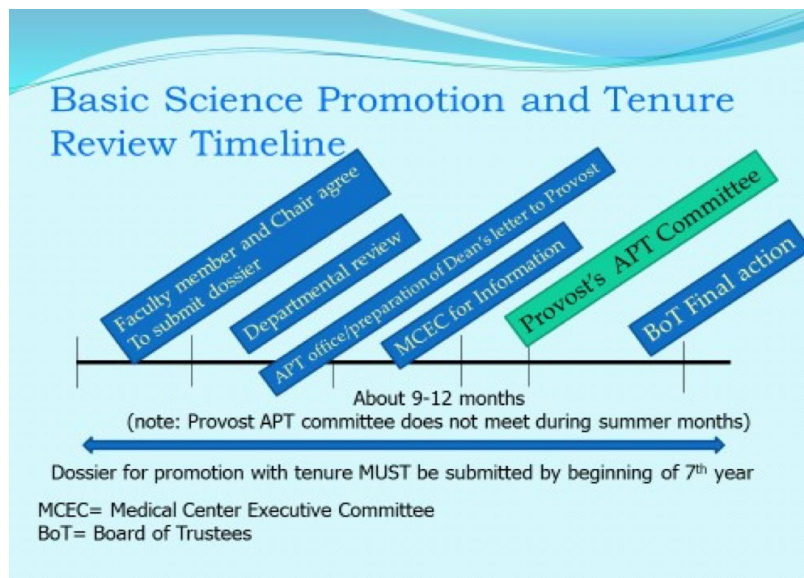
Promotion for Faculty in Basic Science Tenure Track

The promotion in this track follows the guidelines set forth by the provost office. Detailed guidance for this process and dossier preparation is provided by the [Faculty Affairs office](#).

In this track, promotion to associate professor and promotion with tenure is generally handled at the same time, although a two 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 Appendix J in the faculty handbook for Basic Science Faculty on general guideline and procedure 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 by the [Provost Faculty Affairs office](#). The evaluation is based on the areas of *Research and Scholarly Productivity*, *Service*, *Teaching and Education*. The specific criteria for promotion with tenure in basic science are reproduced for clarity below:

- 1) The criteria for promotion, which must be clearly addressed in both the internal and external documentation, are:
 - a) Important and original contributions to the candidate's field. The candidate must have a publication record that demonstrates substantial independent scholarship and important research contributions, including opening new avenues of investigation and/or new ways of tackling a fundamental question. For publications on which the candidate is not first or senior author, the candidate must clearly articulate the specific contribution(s) that he/she has made as part of his/her statement of research contribution
 - b) Demonstrated success at external funding sufficient to support the research effort expected from a tenured faculty member in his or her specific research area, and a strong likelihood of sustained funding at that level.
 - c) A strong national/international reputation, including invited participation in major meetings in their field.
 - d) Significant contributions to teaching.
 - e) Service to the department and university, as well as participation in interdisciplinary collaborations between departments and/or schools.
- 2) The rank of professor is reserved for those who have clearly met the criteria for tenure and have demonstrated continuous intellectual development and leadership.

The overall Basic Science Promotion and Tenure timeline is reproduced for clarity below:



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 doesn't 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 4. 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	<ul style="list-style-type: none"> - April Faculty Meeting to Vote for Soliciting Outside Letters - August Faculty Meeting to Vote for Final Approval 	September 1	March 1
March	April 1	<ul style="list-style-type: none"> - June Faculty Meeting to Vote for Soliciting Letter - October Faculty Meeting to Vote for Approval 	November 1	May 1
July*	August 1	<ul style="list-style-type: none"> - 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 Appendix L in the faculty handbook for Clinical Science Faculty on 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, personal 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 for [faculty career track](#). 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 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:

1. *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, h-index 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 scholarship as defined [here](#).
- b. 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

- c. 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 trainings 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, co-principal 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.

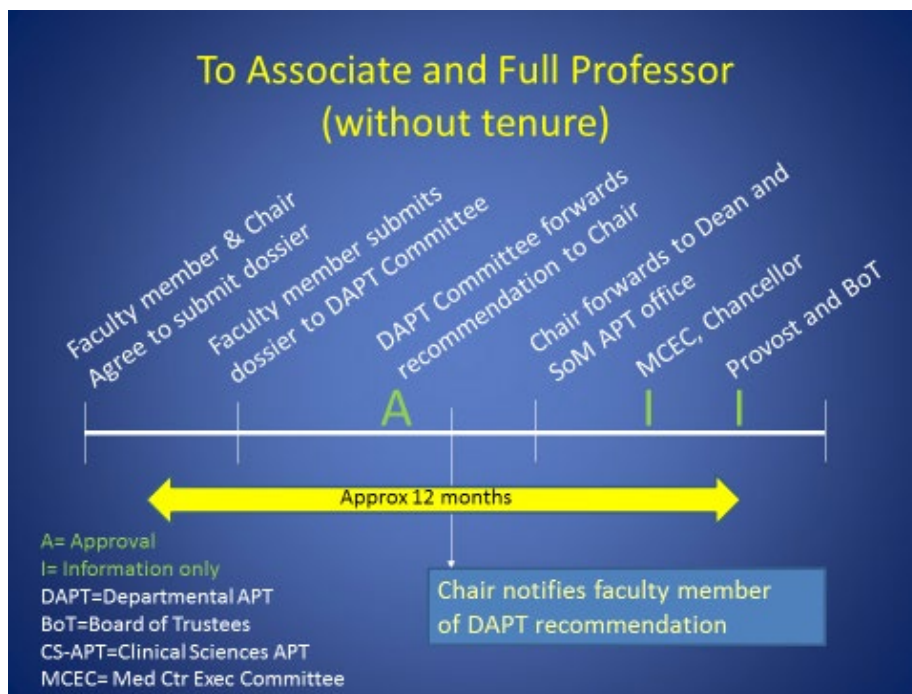
Leadership in teaching and education may be shown by extended periods of excellence on establishing teaching and educational methods with scholarly contribution through peer-reviewed publications/professional dissemination or extraordinary administrative roles with innovative teaching approach or education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

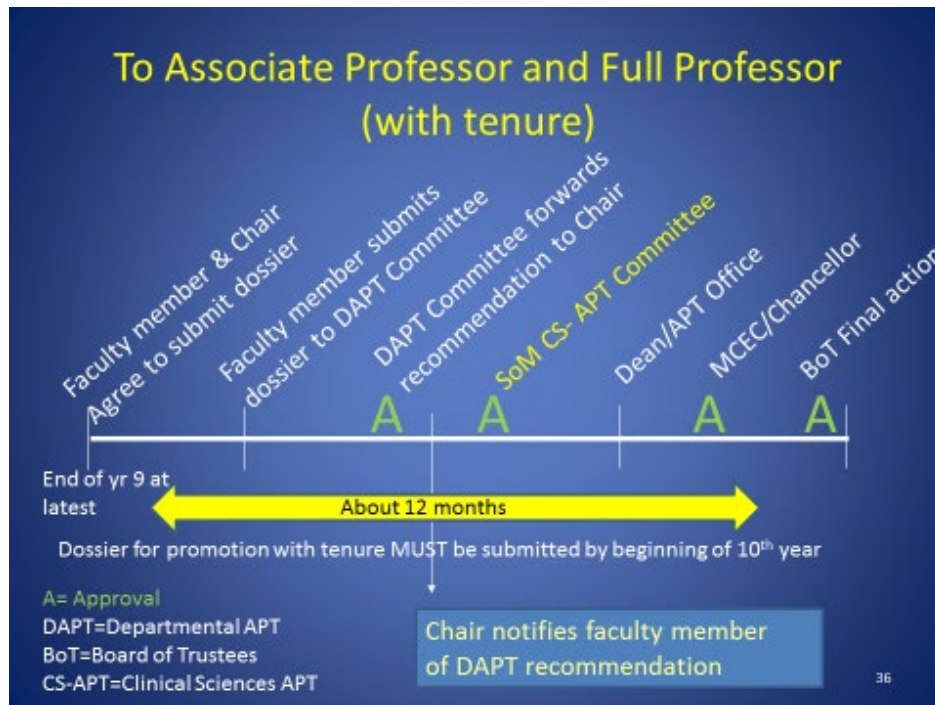
Table 5. Different Expectations for 5-year rolling contract vs. regular career track faculty

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	Expected	Encouraged

group, NIH, non-NIH research grants/contracts		
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 are reproduced for clarity below for promotion without or with tenure:





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 under 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 the promotion needs 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:

- a. 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, three (six for associate or full professor appointment) letters of reference, 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. Three (six for associate or full professor appointment) letters of reference are required if B&B is the primary department
- c. The applicant gives a departmental seminar and have 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 and present the applicant at a faculty meeting. The applicant must submit the following documents: CV, research statement, and teaching & mentorship statement and relevance to B&B.
- 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 appointment. 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 [emeritus guidance in 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 such 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 based on statement of contribution to B&B during their last appointment.

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 6: Mentoring Activities

Activities	Who	When	Logistics and Purpose
Committee mentoring	Committee members and faculty mentee	In the Fall between September and October	The chair schedules a meeting (can be lunch with the cost reimbursed by the department); 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 chair to schedule 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.



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, 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 the advisors have either grant names and 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.

Equity, Diversity and Inclusion

The Department of Biostatistics & Bioinformatics recognizes that 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. With leadership from the Committee on Equity, Diversity and Inclusion, we are 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.

In our effort to support equity, diversity and inclusion, we recognize that the ongoing injustice of implicit and structural racism, particularly against Black and Indigenous people of color, must be proactively addressed. In addition, Latinx, Asian and Asian-American colleagues and students have also faced bias and discrimination. We are committed to taking action to dismantle racism in all forms. Our faculty, staff, and students are encouraged to speak openly, honestly, and without retribution about experience with racism and necessary improvements. We will not discriminate on the basis of race, gender, nationality, language, sexual orientation, disability, or religion. More information can be found on the [B&B Equity, Diversity and Inclusion webpage](#).

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 Diversity and Inclusion, 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 Frequently Used Links

[Annotated Bibliography/Key Contributions template](#)

[Appendices](#)

[Appointment guidelines](#)

[B&B Equity, Diversity and Inclusion webpage](#)

[B&B Faculty Box Folder](#)

[Chapter 4 of the Duke University Handbook](#)

[Document from school of medicine](#)

[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](#)

[Faculty Affairs office](#)

[Faculty career track](#)

[Frameworks](#)

[Sample research strategies](#)

[Science Culture and Accountability Plan](#)

[Services for Individual Investigators](#)

The previous annual versions of the faculty handbook are available in the [B&B Faculty Box Folder](#).