

## **CDB Normal Merit Standards**

***(this commentary and the discipline-specific impacts statement is included in all letters; it is combined with stage-specific standards, listed below, as appropriate)***

We have included a copy of our School's normal merit standards with this letter. Beyond these broad standards, the Department of Cell & Developmental Biology has agreed upon additional criteria for the evaluation of research productivity. As stated in the School's standards, the expectation for a normal merit advance, following tenure, is approximately 1-2 peer-reviewed research publications per year, with at least one of these publications as corresponding or co-corresponding author. CDB also recognizes that the impact of individual publications is an important criterion that can override the total number of publications when assessing productivity within a review period, particularly for publications that influence the direction of the field. Furthermore, building on the statements in the School's standards, CDB places a high value on collaborative co-authorships. Cell Biology and Developmental Biology are increasingly interdisciplinary and it is appropriate to reward CDB faculty members who collaborate by combining complementary methodologies and expertise to produce insights that cannot be derived from one laboratory working alone. While corresponding or co-corresponding authorship typically indicates that a faculty member has provided the scientific leadership for the investigation, collaborative co-authorship can also reflect substantial effort and achievement. In some cases, collaborative co-authorships denote a major contribution to experimental design, execution, and/or analysis, whereas other collaborative co-authorships may correspond to a more minor contribution, such as providing a specialized reagent or other resource. Taking the degree of contribution into account, CDB considers collaborative co-authorships to signify meaningful achievements that can, in combination or even on their own, carry equivalent weight to a corresponding or co-corresponding author publication.

## **Discipline-specific Impacts Statement**

Cell biology and developmental biology, which represent the research areas of the Department of Cell & Developmental Biology, are inherently hands-on disciplines. Faculty in these fields study living things – animals, plants, cells, microbes – that require in-person care and attention around the clock, 7 days a week. The work requires dedicated lab personnel, which include graduate students, postdoctoral scholars, undergraduate students, and research staff. Research opportunities for all CDB faculty were severely hindered by a number of external events since the beginning of 2020. First, the restrictions on campus access and limitations on personnel density that were in place due to the COVID-19 pandemic from March 2020 until Summer 2021 placed great stress on our faculty and their research programs. The impact was particularly significant on our junior faculty that were just launching their independent research programs, and was greatly exacerbated by the campus's poorly-managed Enterprise System Renewal (ESR) transition, including a new payroll system, timekeeping system, and financial system, that was launched in the midst of the pandemic. The negative effects of the pandemic and the ESR transition continue to reverberate and have negatively impacted the ability of CDB faculty to advance their research agendas and generate timely publications. In particular, the inability to accurately

monitor lab finances following the ESR transition has impacted decision-making, hiring, and in turn research productivity. Compounding these two events, the UAW strikes and collective bargaining agreements for graduate students and postdocs in late 2023/early 2024, which both disrupted normal work plans and significantly and suddenly increased costs for graduate students and postdocs that work in CDB faculty research groups, negatively impacted CDB faculty research programs. The pandemic and the UAW strike also disrupted teaching and significantly increased the time burden placed on CDB faculty to abruptly adjust their courses, which further affected their research productivity. These events have also had an outsized impact on our Teaching Professors, as these faculty are responsible for teaching multiple courses each year including, for most Teaching Professors, laboratory courses. More recently, the disruption of federal funding and the uncertainty associated with it has added yet another significant stress to the research efforts of CDB faculty that rely on federal support for their research programs. Altogether, these events have had a substantial negative impact on the scholarly opportunities available to faculty in our fields. During the current academic reviews, we will therefore carefully consider achievement relative to opportunity for each CDB faculty member.

### **CDB Normal Merit Standards: Fourth Year Appraisals**

We have included a copy of our School's normal merit standards with this letter. In addition to those broad standards, the Department of Cell & Developmental Biology has established expectations for faculty at the fourth-year appraisal review. We expect good progress toward establishing scholarly independence from mentors. This is typically documented by 1 primary peer reviewed research article as corresponding author and 1 major grant from an external funding agency. In addition, there should be evidence that the faculty member is developing a coherent and independent research program with the potential for significant future impact. Further, we expect a strong teaching effort, and service appropriate to the Assistant Professorial rank. Such service includes being a member of one School-wide committee or serving in a School service role, active participation in the Department's functions such as faculty searches and science talks, and engagement with the Biological Sciences and other graduate programs. Teaching includes making a commitment to establishing an effective teaching style and utilizing campus resources as needed, as well as developing a record of mentorship while building an active laboratory to both support their research program and train the next generation of scientists. Faculty with a substantive external grant and at least 1 corresponding-author impactful research article, with no weakness in teaching or service, may receive a "favorable" appraisal. In reviewing recent fourth year appraisals, we acknowledge that most faculty at this stage do not yet have one or more corresponding or co-corresponding author research articles and/or have not been awarded major funding, but typically have demonstrated progress towards both goals, and therefore will most likely receive a "favorable with recommendations" appraisal rating.

### **CDB Normal Merit Standards: Tenure**

We have included a copy of our School's normal merit standards with this letter. In addition to those broad standards, the Department of Cell & Developmental Biology has established expectations for faculty being evaluated for tenure. We expect establishment of scholarly independence from mentors. This is typically documented by 2 primary peer reviewed research articles as corresponding or co-corresponding author and 1 major grant from a federal agency. In addition, there should be strong evidence of a robust and ongoing research program that will lead to significant future impact and recognition. Further, we expect a strong teaching effort, and service appropriate to the Assistant Professorial rank. Such service includes being a member of one School-wide committee or serving in a School service role, active participation in the Department's functions such as faculty searches and science talks, and engagement with the Biological Sciences and other graduate programs. Teaching includes a commitment to and record of impactful teaching in the classroom, as well as a record of effective mentorship while establishing an active laboratory to support their research program and train the next generation of scientists.

### **CDB Normal Merit Standards: Promotion to Full Professor**

We have included a copy of our School's normal merit standards with this letter. In addition to those broad standards, the Department of Cell & Developmental Biology has established expectations for faculty eligible for consideration for promotion to Full Professor. We expect a strong record of innovative research, generally measured by primary peer-reviewed research articles, i.e. approximately 1-2 peer-reviewed research publications per year, with at least one of these publications as corresponding or co-corresponding author, that make important contributions to both special subject areas and broad fields in cell and developmental biology, a strong record of external funding support during the review period, a record of excellence in teaching, and effective mentorship of trainees in their research group, a growing record of service to the Department and to the School, as well as meaningful contributions to the campus and to the profession. Their research program should reflect broad recognition and impact, nationally and internationally, as reflected through a variety of metrics such as invited research talks and participation in conferences, service as an advisory board member or consultant on reviews of research grants or institutions, etc. Campus service includes consistent and active participation in faculty governance, membership on or leadership of one School-wide committee or serving in a major School service role, and sustained engagement in the Department's functions such as faculty searches and training students within the Biological Sciences graduate program. Faculty at this level should have a record of teaching excellence reflecting a commitment to undergraduate and graduate education, along with a growing record of mentorship that demonstrates that graduate and postdoctoral mentees have gone onto successful careers.

### **CDB Normal Merit Standards: Step VI**

We have included a copy of our School's normal merit standards with this letter. In addition to those broad standards, the Department of Cell & Developmental Biology has established expectations for faculty eligible for consideration for advancement to Step VI. We expect a strong record of innovative research, generally measured by primary peer-reviewed

research articles, i.e. approximately 1-2 peer-reviewed research publications per year, with at least one of these publications as corresponding or co-corresponding author, that make important contributions to both special subject areas and broad fields in cell and developmental biology, a strong record of external funding support, e.g. being a primary PI on at least one active grant from NIH or equivalent agencies in the review period, sustained excellence in teaching, student education and strong mentorship to trainees, a strong record of service to the Department and to the School, as well as important contributions to the campus and the profession. Their research program should demonstrate national and international recognition and significant impact, as reflected through a variety of metrics such as invited research talks and leadership roles in conferences, service as an advisory board member or consultant on reviews of research grants or institutions, service in editorial roles, etc. Campus service includes consistent and active participation in faculty governance, such as serving on academic senate committees, leadership of a School-wide committee or a major School service role, and sustained engagement in the Department's functions such as faculty searches, mentoring junior faculty, and training students within the Biological Sciences and other graduate programs. Faculty at this level should have a record of teaching excellence reflecting a commitment to undergraduate and graduate education, along with a record of mentorship that demonstrates that graduate and postdoctoral mentees have gone on to successful careers.

**CDB Normal Merit Standards: advancement to above scale and advancement further above scale**

We have included a copy of our School's normal merit standards with this letter. In addition to those broad standards, the Department of Cell & Developmental Biology has established expectations for faculty eligible for consideration for advancement to above scale or advancement further above scale. We expect a strong record of innovative research, generally measured by primary peer-reviewed research articles, i.e. approximately 1-2 peer-reviewed research publications per year, with at least one of these publications as corresponding or co-corresponding author, that make significant contributions to both special subject areas and broad fields in cell and developmental biology, a strong record of external funding support, e.g. being a primary PI on one active grant from an external funding agency in the review period, sustained excellence in teaching, student education and mentorship to trainees, a strong record of service to the Department and to the School, as well as significant contributions to the campus and the profession. Their research program should consistently demonstrate national and international recognition and significant impact, as reflected through a variety of metrics such as invited research talks and leadership roles in conferences, service as an advisory board member or consultant on reviews of research grants or institutions, service in editorial roles, and election to scientific societies, etc. In addition, there should be evidence that this level of achievement will continue beyond the current review. Campus service includes consistent and active participation in faculty governance at the highest level, such as serving on senate committees with campus-wide impact, leadership roles in the School, and sustained engagement in the Department's functions such as faculty searches, mentoring junior faculty, and training students within the Biological Sciences and other campus graduate

programs. Faculty at this level should have a record of teaching excellence reflecting a commitment to undergraduate and graduate education, along with a record of mentorship that demonstrates that graduate and postdoctoral mentees have gone on to successful careers.