

March 30, 2017

To: Riverside Division of the UC Academic Senate
Through: Dylan Rodriguez, Chair
From: Cynthia Larive, Provost and EVC *Cynthia Larive*

Request for name changes to three CNAS departments

Dear Dylan,

I am forwarding three proposals from CNAS departments to change their names, as summarized below.

- The Department of Biology requests a name change to the Department of Evolution, Ecology, and Organismal Biology.
- The Department of Cell Biology and Neuroscience requests a name change to the Department of Molecular, Cell and Systems Biology.
- The Department of Plant Pathology and Microbiology requests a name change to the Department of Microbiology and Plant Pathology.

These proposals have been developed and approved by the faculty of each department, endorsed by CNAS Dean Kathryn Uhrich, and are unanimously supported by the CNAS executive committee. I am pleased to add my support for these changes, as I believe that the new names are a better reflection of the current organization and future directions of life science teaching and research at UCR.

TO: Cindy Larive, Provost & Executive Vice Chancellor
FROM: Kathryn Uhrich, Dean, CNAS
DATE: March 11, 2017
RE: Name change for the Department of Cell Biology and Neuroscience (CBNS) to
the Department of Molecular, Cell and Systems Biology (MCSB)

I am pleased to submit the attached letter from the faculty of the Department of Cell Biology and Neuroscience to change its name to the Department of Molecular, Cell and Systems Biology (MCSB). After much discussion within the Department and with CNAS, the proposed name change was unanimously approved by the Department.

As outlined in the Department's letter, the name change better reflects the current programs of the Department and better reflects modern life sciences research. I am fully supportive of the name change.

Therefore, I request that campus formally approves the name change from the Department of Cell Biology and Neuroscience (CBNS) to the Department of Molecular, Cell and Systems Biology (MCSB).

Please let me know if you need any additional information.

UC RIVERSIDE UNIVERSITY OF CALIFORNIA | College of Natural and
Agricultural Sciences
Executive Committee

February 27, 2016

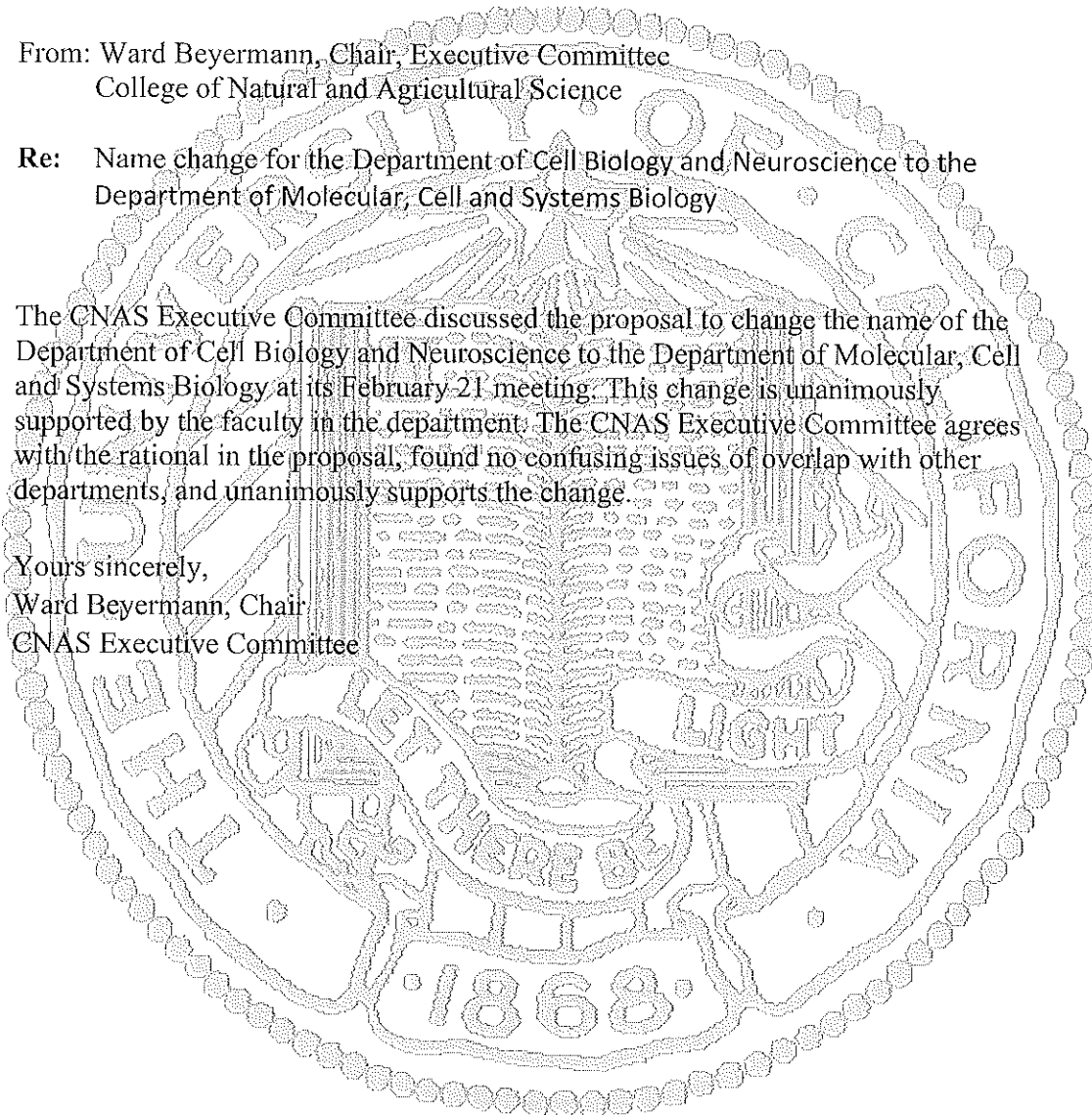
To: Cynthia Larive, Provost & Executive Vice Chancellor

From: Ward Beyermann, Chair, Executive Committee
College of Natural and Agricultural Science

Re: Name change for the Department of Cell Biology and Neuroscience to the
Department of Molecular, Cell and Systems Biology

The CNAS Executive Committee discussed the proposal to change the name of the Department of Cell Biology and Neuroscience to the Department of Molecular, Cell and Systems Biology at its February 21 meeting. This change is unanimously supported by the faculty in the department. The CNAS Executive Committee agrees with the rationale in the proposal, found no confusing issues of overlap with other departments, and unanimously supports the change.

Yours sincerely,
Ward Beyermann, Chair
CNAS Executive Committee



September 29, 2016

To: Kathryn Uhrich
Dean, College of Natural and Agricultural Sciences
Peter Atkinson
Associate Dean of Life Sciences, CNAS

From: David Eastmond
Chair, Department of Cell Biology and Neuroscience

Re: Proposed renaming the Department of Cell Biology and Neuroscience to the Department of Molecular, Cell and Systems Biology in CNAS

The Department of Cell Biology and Neuroscience (CBNS) has reviewed the Senate committees' comments of Jan-Feb 2016 regarding the formation of a new Department of Molecular, Cell and Systems Biology (MCSB), and are responding to those comments in this letter.

The formation of a new department of MCSB was originally proposed in June 2014 and signed by ~35 faculty from multiple life sciences departments in response to the CNAS Dean's call for faculty-led proposals for redesigning the college. That proposal was incorporated into the CNAS Reorganization Plan dated December 2014 (revised August 2015), which was then approved by the CNAS Executive Committee and reviewed by the Academic Senate in Jan-Feb 2016.

While the academic landscape has changed in the two-year interim, the current CBNS faculty remain convinced that a name change to MCSB would be beneficial for the department, the college and the university.

Why rename the Department?

Renaming the Department of Cell Biology and Neuroscience (CBNS) to Molecular, Cell and Systems Biology (MCSB) will be advantageous for several reasons.

One, it will better reflect the research of the current faculty in the department, as well as anticipated future hires. While we have a growing cohort of card-carrying neuroscientists, as well as a few cell biologists, others in the department characterize their research more as molecular biology or systems biology.

Two, the term "Systems Biology" is quite broad so the name change would not exclude any neuroscience (or other) faculty. There are many definitions of Systems Biology, one such definition from the Institute of Systems Biology in Seattle¹ is

"a holistic approach to deciphering the complexity of biological systems that starts from the understanding that the networks that form the whole of living organisms are more than the sum of their parts."

¹ <https://www.systemsbiology.org/about/what-is-systems-biology/>

One of the most complex networks in biology is the nervous system.

Three, the term Systems Biology, better reflects modern life sciences research in the post-genomic era. Again, from the Institute of Systems Biology, systems biology

*“is **collaborative**, integrating many scientific disciplines – biology, computer science, engineering, bioinformatics, physics and others – to **predict** how these systems change over time and under varying conditions, and to develop solutions to the world’s most pressing health and environmental issues.”*

Four, a more modern departmental name will be more attractive to new hires.

The CBNS faculty voted on April 25, 2016 to change the name of our department to Molecular, Cell and Systems Biology. The vote for the name change was overwhelming positive with 13 in favor, 0 opposed, 1 abstention and 5 unavailable.

How will MCSB contribute to future growth of CNAS and UCR?

The mission of the Department of CBNS/MCSB is to engage in research and teaching in the life sciences that covers a breadth of organisms – from bacterial pathogens to insects to humans, from yeast to zebra fish to mice -- as well as scale -- from molecular to cellular to networks both intra-and inter-organismal. We focus on basic research aimed at elucidation of fundamental biological mechanisms, some of which have immediate relevance to public health. Our current and anticipated future faculty investigate interactions between different cells or tissues within and between organism. We do research on the genetic basis of disease as well as precision medicine and exposure to environmental toxicants and diets. We perform research on how chromosomes segregate and protect their ends in yeast as well as how mammals respond behaviorally to environmental cues. We examine how the brain works on the molecular and cellular level.

In short, the research interests of the CBNS faculty encompass much more than ‘just’ cell biology and neuroscience. A name change to MCSB will also provide a more optimal launch pad for existing and future academic programs, as described below:

What is the impact on the undergraduate programs associated with CBNS?

CBNS currently anchors the interdepartmental/intercollege undergraduate program in Neuroscience together with Psychology (CHASS). The Neuroscience major is a robust, expanding program with its own identity that is not explicitly tied to CBNS although CBNS faculty are responsible for a major portion of the instruction in the programs. MCSB faculty will continue to jointly administer the Neuroscience undergraduate major; the departmental name change to MCSB should not impact the program in any noticeable manner.

CBNS faculty also play a major role in the undergraduate major in Cell, Molecular and Developmental Biology (CMDB). CBNS faculty teach several courses in the CMDB undergraduate major but the program is currently manned by faculty across CNAS and does not have a departmental home. The CBNS faculty look forward to playing a larger role in this undergraduate major and providing a departmental home for the major. A name change to MCSB would broaden the scope of our department and could facilitate our involvement and future leadership in the CMDB undergraduate major.

What is the impact on the graduate programs associated with CBNS?

CBNS faculty participate extensively in many interdepartmental graduate programs, the most prominent of which are Neuroscience, CMDB and Environmental Toxicology (ETOX). Past and current directors of all three graduate programs have come from CBNS faculty; CBNS faculty play a very active teaching role in all three graduate programs; and there are numerous graduate students in CBNS faculty labs from these and other interdepartmental graduate programs including Genetics, Genomics and Bioinformatics (GGB), Biomedical Sciences and Biochemistry and Molecular Biology (BMB).

All of these graduate programs are interdepartmental and would remain as such. A name change of CBNS to MCSB would not affect faculty involvement nor the programs in any way.

What is the impact on the Departmental graduate program?

There is currently no CBNS departmental graduate program and at this point there are no plans to create a graduate program in MCSB. The current graduate programs of CMDB and GGB as well as Neuroscience, adequately cover the field, although this arrangement could change in the future.

What are the budgetary impacts?

There would be no immediate budgetary impact. Since the inception of CBNS circa 2000 when ETOX faculty from Entomology merged with Neuroscience faculty and cell biologists from the Department of Biology, the CBNS faculty have very efficiently shared staff with the Department of Biology and the Natural Reserve System. That administrative unit – BNN – would remain intact and continue to serve the renamed Biology Department (EEOB), the Natural Reserve System and MCSB. As the MCSB faculty grow in the future, staffing of the BNN will need to be expanded accordingly. (The BNN moniker, which stands for Biology, Neuroscience and Natural Reserve, might need to be changed.)

How does MCSB relate to the CNAS External Review Report?

The External Review of CNAS in February 2014 did not have any specific suggestions for the CBNS department. However, in response to a general call for larger departments (including a larger biology department that included cell and molecular biology) and the CNAS Dean's subsequent request for input on reorganization, CBNS and other faculty devised the plan for

MCSB in June 2014. MCSB continues to be consistent with a focus on Mind and Body in the CNAS Academic Plan of February 2014 and the UCR 2020 Vision and was incorporated into the final CNAS Redesign Plan of December 2014.

Why is this change advantageous to the faculty, students and the campus?

The name change to MCSB is advantageous to both faculty and students as it better reflects the type of research done by the CBNS/MSCB faculty (as noted above) as well as more modern approaches to life science research. With the advent of “omics” and other cutting edge molecular and cellular technologies in the past 10-15 years, as well as increased computational power and approaches, the pace, scope and depth of research in life sciences has broadened tremendously and become much more integrated. Technological barriers that use to define disciplines in the past such as cell biology v. molecular biology have evaporated. A ‘rebranding’ of CBNS to MCSB not only better reflects the research in the department but also sends the message that this research is on the cutting edge.

Are any other departments affected?

Other departments in CNAS will not be significantly affected. Due to the cluster hire process and the 2-year interim since our first proposal, it now appears that the Departments of Botany and Plant Sciences (BPS) and Plant Pathology and Microbiology (PPM) will remain intact and that there will likely be, at most, only a couple of BPS faculty joining MCSB. Likewise, we anticipate that at most only a small number of faculty from Entomology will join MCSB. Since BPS and Entomology are both large, robust departments with a long and very successful history, they should not be adversely affected.

The original June 2014 proposal for MCSB, as well as the December 2014 final CNAS redesign plan, included a division of Biochemistry in MCSB. However, the Department of Biochemistry is now remaining intact and not anticipated to be adversely affected by MCSB. While there is some overlap between some MCSB and Biochemistry faculty in terms of molecular biology research, the field of molecular biology is immense and the major focus of the research in Biochemistry is more structural in nature and closer to physical chemistry (underscored by an emerging proposal for an interdepartmental graduate program in Biophysics spearheaded by Biochemistry faculty). The situation is no different than what currently exists in the graduate programs where both CMDB and BMB Graduate Programs have the word ‘molecular’ in their titles and yet the programs have distinct identities and attract different sets of students. Finally, a certain amount of disciplinary overlap between the departments is advantageous as it allows faculty from different departments to interact more and facilitates communication between departments.

We acknowledge that several other departments carry out cellular, molecular and systems biology research, but most of those departments are focused around a specific kingdom, phylum or class (e.g., plants or insects).

Finally, and most importantly, it should be noted that the current focus of CBNS faculty and how we anticipate it will grow in the future as MCSB are distinct from all other CNAS departments and will only serve to complement them.

Are there any space implications?

There is currently some lab space for new faculty in space administered by CBNS. More should become available with the completion of MRB1 in 2018 and the proposed MRB2 in 2019, as well as due to anticipated retirements over the next few years.

Does the CNAS Dean support the action?

Dean Uhrich has expressed strong support of this name change to CBNS faculty on several occasions.