

Excellence in Research

UC IRVINE DUNLOP SCHOOL OF BIOLOGICAL SCIENCES

TO: Faculty and Student Participating in Bio Sci 199

FROM: Raju Metherate, Associate Dean of Undergraduate Education, Charlie Dunlop School of Biological Sciences

RE: Undergraduate Research Symposium, 2025-2026 Excellence in Research Program (<https://undergraduate.bio.uci.edu/research/undergraduate-excellence-in-research-program/>)

The Charlie Dunlop School of Biological Sciences believes that successful participation in creative research is one of the highest academic goals undergraduates can attain. Students enrolled in Undergraduate Research (Bio Sci 199) who meet eligibility requirements have the opportunity to present their scientific data to the academic community at the Undergraduate Research Symposium through participation in the Excellence in Research Program. Students who successfully complete the program will earn the distinction of Excellence in Research in Biological Sciences.

PLEASE NOTE: Information contained in this packet is subject to change. Students will be notified via e-mail for all program/task reminders and if updates/revisions are necessary.

TIMETABLE

All students intending to participate in the Excellence in Research Program are required to attend a mandatory informational workshop. The workshop will be offered twice, and you only need to attend one session. Attendance is required for eligibility – students who do not attend will not be permitted to participate in the program. No additional workshops will be scheduled.

All program details and requirements will be explained during the session. Please note that all requirements are firm. To receive credit for attendance, you must arrive on time and remain for the entire workshop. Students must register for a workshop using the Google Form – [RSVP here](#).

Workshop 1: Tuesday, November 4, 2025

Location: RH 101

Time: 3:30 – 4:50PM

OR

Workshop 2: Monday, November 17, 2025

Location: DBH 1600

Time: 3:30 – 4:50PM

After the workshops are completed, you will receive an email notification indicating when the Excellence in Research Dashboard becomes available. Before proceeding, review the Eligibility section (page 5 of this packet) to confirm that you meet all requirements.

The Excellence Dashboard allows you to track your progress in the program and provides prompts to help you meet deadlines. Each task will open and close on specific dates and times. Once a deadline has passed, the corresponding task will no longer be accessible. **Deadlines are firm – late, incomplete, or unsigned submissions will not be accepted. If you miss a deadline, you will be withdrawn from the program. No exceptions will be made.**

Plan ahead and maintain communication with your faculty advisor early in the process to ensure timely paper reviews, evaluations, and signatures.

Scheduling within the Excellence in Research Program is determined by your department. Please identify whether your department is the **School of Medicine (SOM)** or one of the following departments within the **Dunlop School of Biological Sciences (BIO SCI)**:

- Ecology and Evolutionary Biology
- Developmental and Cell Biology
- Molecular Biology and Biochemistry
- Neurobiology and Behavior

Note: Your department is determined by your faculty mentor's departmental affiliation, which you can verify in the [UCI Faculty Profile System](#).

IMPORTANT DATES AND DEADLINES FOR ALL PARTICIPANTS (BIO SCI & SOM):

Forms must be completed on the Excellence in Research Dashboard by students who meet the eligibility requirements and have attended a workshop. Access the dashboard at <https://excellence.bio.uci.edu/>.

Each task opens and closes on the dates and times indicated. Late, unsigned, or incomplete submission will not be accepted.

- **Mon, December 1, 2025, 8:00AM – Wed, December 10, 2025, 11:59PM**
Complete your “Personal Profile.”
- **Mon, January 12, 2026, 8:00AM – Wed, January 21, 2026, 11:59PM**
Complete your “Research Profile.” Please keep your responses brief – a few sentences per question is sufficient. Make sure you indicate the appropriate department as explained above.
- **Wed, January 28, 2026, 8:00AM – Wed, February 11, 2026, 11:59PM**
The “Research Profile” signed by your Faculty of Record is due. This is the same online form you completed in January. Log in to the Excellence in Research

Dashboard, make any necessary edits, then print a copy and obtain your Faculty of Record's signature. Your Faculty of Record is confirming your participation in the program and the details of your research project. Once signed, upload the completed form to the Excellence Dashboard.

Note: Signatures from postdocs, lab managers, or other research personnel will NOT be accepted. Your Faculty of Record is the instructor listed on the Schedule of Classes for your Bio Sci 199 course.

- **Mon, March 16, 2026, 8:00AM – Fri, April 3, 2026, 11:59PM**

Print the Paper Certification Sheet from the Excellence Dashboard during this period. Your Faculty of Record must sign the form AFTER reviewing and approving your completed research paper. Upload the signed certification sheet to the Excellence Dashboard along with your final Research Paper by April 3rd.

- **Thurs, April 2, 2026, 8:00AM – Fri, April 3, 2026, 11:59PM**

Your final Excellence in Research Paper is due. Log in to the Excellence Dashboard to upload your paper in PDF format. This submission is your final version and will be evaluated by the Honors Committee – it is not a draft, and revisions will not be accepted after submission.

Plan ahead and allow your faculty sufficient time to review your paper before the deadline, as they may request revisions. **All papers must adhere to the Excellence in Research paper guidelines and formatting requirements outlined in this packet (see pages 6-12). Late or incomplete research papers will not be accepted. No exceptions.**

- **Mon, April 6, 2026 – Mon, April 13, 2026**

Finalize your poster during this time. [ImageWorks](#) can print and mount your poster for in-person judging. This is not a task item on the Excellence Dashboard. For additional details, refer to pages 13-14 of this packet.

- **Tues, April 14, 2026, 8:00AM – Wed, April 15, 2026, 11:59PM**

Your final poster is due. Upload your poster to the Excellence Dashboard in PDF format. If you earn Excellence at the conclusion of the program, your poster will be published, along with your research paper, in the *Journal of Undergraduate Research in the Biological Sciences*.

- **Mon, April 20, 2026 – Thurs, April 23, 2026**

Undergraduate Research Symposium - individual Poster Judging Sessions will take place during this period. For Bio Sci students, poster judging will take place in the Bio Sci III, Lobby. For SOM students, judging will be held in Gillespie/Sprague Courtyard (to be confirmed).

Easels will be provided. During your judging session, you are expected to stand by your poster, present your research, and answer questions from the judges as

determined by your department. A specific departmental schedule, including day and time, will be provided after your research paper has been submitted.

Please adhere strictly to set-up and take-down times. Arrive at least 10 minutes early. Attendance at your assigned judging time is mandatory, and changes cannot be accommodated. For additional details, see pages 13-14 of this packet.

- **Tues, May 5, 2026 and Wed, May 6, 2026**

Dean's Awards for Excellence in Research Showcase – individual Poster Sessions will take place on these two dates. Students selected to receive the *Dean's Award for Excellence in Research* will be assigned a final presentation time, either Tuesday afternoon or Wednesday morning. The event will be held in Bio Sci III, Lobby, with easels provided.

In addition to receiving *Excellence*, distinguished award winners will receive additional recognition. See details on page 15-16. Professional dress code is required.

- **Beginning Wed, May 13, 2026, 8:00AM**

Review evaluator comments beginning this time. Log in to the Excellence Dashboard to view comments on your paper. Discuss the requested revisions with your faculty and make the necessary changes before uploading. Only revisions specifically requested by your evaluator(s) may be made at this time. You may NOT rewrite or make additional changes to your paper, as it will not be re-evaluated by the Honors Committee.

- **Wed, May 13, 2026, 8:00AM – Fri, May 22, 11:59PM**

Print the Final Certification Sheet from the Excellence Dashboard during this period. Have your Faculty of Record sign the sheet after reviewing and approving your paper, including any requested evaluator revisions. Upload the signed sheet to the Excellence Dashboard along with your final Excellence in Research Paper by May 22nd.

If your faculty does not approve publication of your paper and poster, print and submit the “Do Not Publish” Sheet instead of the Final Certification Sheet.

- **Mon, May 18, 2026, 8:00AM – Fri, May 22, 2026, 11:59PM**

Your final Excellence in Research Paper is due. All final papers must be uploaded at this time for the online *Journal*. Make all revisions requested by your evaluator(s) and include the Final Certification Form or “Do Not Publish” Sheet signed by your faculty. Papers must adhere to all guidelines and formatting requirements to be published.

ELIGIBILITY

Undergraduate students must be officially enrolled in independent research in Biological Sciences (Bio Sci 199 only – other School's 199s are not accepted) and have completed a minimum of four (4) quarters of research on the same project by the end of Spring Quarter 2026. At least one quarter must be taken during the 2025-2026 academic year. Students must also be enrolled at UCI through Spring quarter and graduate no earlier than Spring 2026.

Students must be in good academic standing with an official cumulative UCI GPA of 3.0 or higher by the end of Fall 2025. Students must not have been found responsible for any student or academic misconduct, nor have an unresolved case with OAISC.

Students who have earned Excellence in Research previously are eligible to participate again, provided all requirements are met and the research project is new/different. Papers and posters must be completed individually and may not be co-authored. If multiple peers in your lab are participating, speak with your faculty to ensure each student has a unique portion of the project to report on.

Note: If you have questions regarding your eligibility, contact Program Coordinator, Eunice H. Choi, in the Dunlop BioSci Student Affairs Office prior to attending an informational workshop. Eligibility requirements are strictly enforced, and exceptions are not permitted.

Requirements for Consideration

To be considered for Excellence in Research, eligible students must:

- 1) Attend November workshop*
- 2) Complete all required tasks/forms
- 3) Write a research paper
- 4) Present a scientific poster at the Undergraduate Research Symposium

Based on the students' work in its entirety, the Honors Committee determines and awards Excellence. Students who receive Excellence will have their paper and poster published in the online *Journal of Undergraduate Research in the Biological Sciences*, 2025–2026.

If awarded, Excellence in Research will satisfy the requirement for laboratory no. 2 for the general Bio Sci major. Students in other Bio Sci specialized majors may require **petition and departmental approval** for Excellence to satisfy their final laboratory requirement. Contact a Bio Sci Academic Advisor for guidance on how this affects your degree requirements.

*The same workshop is offered multiple times; attending one session is mandatory. No additional workshops will be added. Details will be available on the [Dunlop BioSci Student Affairs website](#) and in the Bio Sci weekly announcements in October 2025.

REFERENCE TEXTS

Students are strongly encouraged to refer frequently to the recommended texts for this program.

Recommended Text:

Pechenik, Jan A., *A Short Guide to Writing About Biology*. 7th ed. New York: Longman. 284 p.

Additional Reference Cited:

[CSE] *Scientific Style and Format: The CSE Manual for Authors, Editors, and Publishers*. 7th ed. 2006. (Formerly - [CBE] Council of Biology Editors. 1994. *Scientific style and format*. 6th ed. Cambridge: Cambridge University Press.)

RESEARCH PAPER GUIDELINES

PLEASE NOTE: *LITERATURE REVIEWS* ARE NOT ACCEPTED FOR THE EXCELLENCE PROGRAM. Your research paper must meet all the formal requirements and standards and follow the format published in this packet.

1. STYLE

Write in a clear, logical and concise style. Scientific writing should not be misunderstood. Communicate your findings at the level of those who are familiar with the material covered in our Biological Sciences Core curriculum.

The paper in **TOTAL** (abstract, text sections, illustrations, acknowledgments, and literature cited) may not exceed 13 pages or be less than 8 pages. Papers less than 8 pages or exceeding 13 pages will not be accepted. Utilize the space on each page in its entirety – continue text or graphs/figures rather than starting a new page for a new section. Use **Times, 12-point font** and leave one-inch margins on all sides as well as top and bottom. **Type the abstract, literature cited, acknowledgments and figure legends single-spaced. All other text is double-spaced.** Do not use footnotes. **Make certain that the paper is free of typographical, spelling, punctuation, and grammatical errors.**

2. ABSTRACTS

An abstract is an accurate and informative summary of a research project. In the case of a Research paper, it allows the reader to identify the essentials of the work, including: 1) the research question, 2) the methodology, 3) the results, 4) the conclusions. Each of these aspects of the paper should be presented in a sentence or two and the entire abstract should be presented succinctly in a single paragraph as a part of your final paper and poster. Although the abstract appears as the first section of your paper, it should be written last so you can include the necessary information.

- a. Begin with a topic sentence that states the research question.
- b. Avoid jargon and abbreviations; those unfamiliar with the details of the research area in which you have been working may read your work.
- c. Type your abstract **single-spaced** in Times 12-point font, .3 indent, one-inch margins
- d. Abstract should contain no more than 250 words.
- e. FOLLOW THE EXAMPLE OF THE ABSTRACT SHOWN IN THE SAMPLE PAPER ON PAGE 9 OF THIS PACKET.

3. ILLUSTRATIONS AND TABLES

Place the text describing the graphs or tables on the same page as the figure if possible. Figure legends go below the figures; table legends go above tables. Use space as efficiently as possible.

4. PAGE NUMBERS

Page numbers should be centered on the bottom of each page. Begin numbering on page 2.

5. ORGANIZATION OF THE PAPER

- a. The title of the paper should be typed in Times, 12-point, **ALL CAPITAL LETTERS, BOLD TYPE, CENTERED** at the top of the first page. The title should be a short, clear statement of what is interesting in your paper. "RESEARCH ON PINE TREES" would be too general, for example. *If your title is two lines long, do not leave a space in between line #1 and line #2.* Then type author name (your name, last name first), the department in which the work was done, the Faculty of Record's name, and the abstract on that page according to the required format. Remember, the abstract is single-spaced.
- b. Start your introduction on that same page **without** typing the section heading, "Introduction." The introduction should establish why you are doing your research.
- c. These section headings should be typed in Times, 12-point, capital letters, bold type, left-justified:

MATERIALS AND METHODS

RESULTS

DISCUSSION

AUTHOR'S CONTRIBUTIONS

ACKNOWLEDGMENTS

LITERATURE CITED

- d. See writing references for examples of scientific paper style and organization.
- e. A sample paper follows that demonstrates the required format and spacing and further describes the contents of each section of the paper. YOUR PAPER MUST LOOK LIKE THE SAMPLE PAPER BEGINNING ON PAGE 9.

THE INITIATION OF CALLUS IN *PINUS PONDEROSA*

(3 single spaces)

Student's Name (Last Name First) i.e., Smith, John

Department

(1 single space)

Faculty of Record's Name

(4 single spaces)

*(Begin the abstract here. Remember to type the abstract single-spaced. Indent the first line of each paragraph 0.3 inches (3 spaces). The intent of this study is to develop a method of vegetative propagation for the conifer, *Pinus ponderosa*. The air pollutants from the Los Angeles basin have taken a severe toll on the stand of pines in the San Bernardino Mountains. Therefore, a more tolerant strain of tree must be bred. We have induced callus from excised meristems, long shoots, and branch sections and have grown them successfully for three months (they are still growing) on various derivations of Murashige-Skoog medium supplemented by auxins. Most of the callus cultures are white but still viable. Even though there have only been a few tree species reproduced from callus, the wide range of possibilities offered by this technique should be explored in much greater detail.*

(4 single spaces)

Start the text of the paper here without typing the section heading **INTRODUCTION**.

Again, the introduction establishes why you are doing your research. Focus on a clear hypothesis and provide the context of your work. Remember to type text double-spaced and allow **one-inch margins** on all sides of each page. Center page numbers at the bottom of pages - begin numbering on page 2. Be sure to follow the directions contained in this manual. If you have any questions about the instructions, please be sure to contact Eunice H. Choi in the Dunlop BioSci Student Affairs Office, Bio Sci III, Lobby, 949-824-5318. Your work should be clean, clear, and concise.

Good writing takes time. Begin as soon as you can. You should write at least three drafts. After you have completed your first draft, ask another student in the program to review it. Your

Faculty Advisor should review your second draft and your final manuscript. **Allow enough time for several rounds of revisions.** IMPORTANT – The Excellence in Research Paper due in April is considered your **FINAL** paper and will be evaluated as such by the Honors Committee. This is NOT a draft. You do not have an opportunity to rewrite your paper. Note that Literature Reviews are not acceptable for the Excellence in Research Program.

MATERIALS AND METHODS

This section details the way the research was accomplished. The importance of this section is that it allows someone else to read it and know exactly what needs to be done to replicate your research. Therefore, you must have as much detail as possible in this section so that anyone, anywhere, could do the same research. Be sure to describe the steps taken and how you analyzed your data. **NOTE: THIS IS REQUIRED FOR ALL STUDENTS.** If you used animal subjects, the following sentence should appear in the first paragraph of this section: *All experiments were carried out in accordance with the Institutional Animal Care and Use Committee at the University of California, Irvine, and were consistent with Federal guidelines.* If you used human subjects and/or specimens, your sentence will be as follows: *All experiments were carried out in accordance with the Institutional Review Board at the University of California, Irvine, and were consistent with Federal guidelines.*

RESULTS

This section details and describes your findings in a written format and provides evidence of data. The results should present the outcome of your experiment. **Data should be able to be analyzed, reported, and illustrated with findings presented in text, graphs, tables, etc.** Do

not start to explain your data in this section. Present "p" values here and refer to all graphs in the text by number (Figure 1). Your graphs should be self-explanatory; label lines and bars in the graph and don't use abbreviations. Legends should accompany each figure or table and be placed correctly – above for a table and below for a figure.

DISCUSSION

This section explains the implications of your findings: what the results mean. Describe any problems with the data and try to explain any unexpected findings. Finish this section by suggesting what further studies might be done on the project in the future.

AUTHOR'S CONTRIBUTIONS

This section should include a detailed explanation of your independent and intellectual contributions to the project. This section should be double-spaced.

ACKNOWLEDGEMENTS

This is a place to briefly thank those people (other faculty, lab personnel, etc.) who have helped you complete your project. This section should be **single-spaced**.

LITERATURE CITED

This section presents all the scientific literature to which you have referred to in your paper. To refer to an article in the text, give the authors and year of the article in parentheses, for example, (DePolo and Villarreal 1991). For more than two authors, list only the first author and refer to the others as "et al", for example, (Casey et al 1991). Do not list references which you did not actually cite. **The style for references that you must use is that detailed in the CSE style manual, *Scientific Style and Format: The CSE Manual for Authors, Editors, and Publishers*. 7th ed., 2006.** It is recommended that you have 8-12 references, but you should not exceed the **maximum allowed of 1 page**. Please remember this is not a lab report or review

paper – a primary source for references is needed (NO Wikipedia, for example). **Citing review papers is discouraged – primary sources are preferable.**

References should be **single-spaced**, listed in alphabetical order by first author, and formatted with a 0.3-inch hanging indent (3 spaces) as shown below to distinguish between references. Examples of reference citations for three journal articles, a book, an electronic journal with a print source and a chapter in a book follow. **ALL REFERENCES IN YOUR PAPER MUST FOLLOW THE FOLLOWING FORMAT:**

- Amalfitano A, Martin LG, Fluck MM. 1992. Different roles for two enhancer domains in the organ- and age-specific pattern of polyomavirus replication in the mouse. *Mol Cell Biol* 12:3628-35.
- Casey G, Lo-Hsueh M, Lopez ME, Vogelstein B, Stanbridge EJ. 1991. Growth suppression of human breast cancer cells by the introduction of a wild-type p53 gene. *Oncogene* 6:1791-7.
- DePolo NJ, Villarreal LP. 1991. E1A represses wild-type and F9-selected polyomavirus DNA replication by a mechanism not requiring depression of large tumor antigen transcription. *J Virol* 65:2921-8.
- Friedlander G. 1955. *Nuclear and radiochemistry*. New York: J Wiley. 468 p.
- Jones CC, Meredith W. Developmental paths of psychological health from early adolescence to later adulthood. *Psych Aging* [Internet]. 2000 [cited 2006 Jan 18]; 15(2):351-360. Available from <http://www.psycinfo.com>
- Pringle K. 1988. Viruses. In: Jones BB, Barnes CV, editors. *Advances in virology*. New York: J Wiley. p 112-35.

UNDERGRADUATE RESEARCH SYMPOSIUM – DEPARTMENT POSTER JUDGING SESSIONS

Scientists often present their findings using posters, which are carefully organized, visually appealing displays of their research. The poster serves as a visual reference for the investigator when answering questions and discussing their work. Participants in the Undergraduate Research Symposium will present their research in this format.

Posters will be uploaded to the Excellence in Research Dashboard April 14, 8:00AM – April 15, 11:59PM. A PDF format is required. Max file size is 6MB. If you need to compress your .pdf file, try [Adobe - Compress a PDF](#). Your poster along with your research paper will be available in the *Journal* if you are awarded *Excellence* at program end.

Individual Poster Judging Sessions

Posters will be displayed and judged according to departmental schedules from April 20-23. Each department will host an individual judging session, during which students stand by their posters to answer questions from judges. Easels will be provided.

Locations

- Bio Sci participants: Bio Sci III Lobby
- SOM participants: Gillespie/Sprague Buildings Courtyard (to be confirmed)

Assigned day, time, and detailed instructions will be provided after your research paper is submitted. Schedules vary by department, so be sure to confirm your specific session. Arrive a few minutes early, as all schedules are firm. Attendance at your assigned time is mandatory; individual preferences cannot be met due to the large number of participants.

Poster Requirements and Format

The required poster size is 36" (height) by 48" (width). Posters should be mounted securely on foam core. *Image Works, located at 2112 Natural Sciences I, (949) 824-6414, can print and mount posters. Visit https://www.imageworks.bio.uci.edu/poster_printing/. Turnaround time is approximately one week.* Students or faculty advisors are responsible for the cost of the poster. Please check directly with Image Works for any questions. If you have your poster printed/mounted elsewhere you are responsible for meeting all standards and deadlines. Posters will be judged based on the quality of the science and its' presentation value per rubric provided.

In preparation of the poster, standards must be followed, and elements presented, as shown on the accompanying diagram:

- At the top of the poster is the **Title** of your project, followed by your name, the department in which the work was done, and the name of your faculty advisor in parentheses.
- The **Abstract**, exactly as it appears in your paper, must be included on the poster, followed by **Introduction, Methods, Results and Conclusions** sections. The text of the poster should not be identical to your paper. Rather, the poster should be a brief, clear

- [illegible]

AWARDS

Top students from each department will be selected by the Honors Committee to receive the Dean's Award for Excellence in Research. Award recipients will participate in an additional poster presentation to showcase their projects. Please note that this session is not a judging event, but an opportunity to highlight outstanding research within the School.

All Dean's Award winners will also be recognized at the Biological Sciences Honors Convocation in June, in addition to receiving the Excellence in Research distinction.

The Dean's Awards for Excellence in Research Showcase will be Tuesday, May 6, 2:00 - 4:00PM, and Wednesday, May 7, 10:00AM – 12:00PM (noon), Bio Sci III Lobby. Easels will be provided. Students will be notified of their assigned day/time. Appropriate dress code required.

JUDGING

Faculty members from the School of Biological Sciences and the School of Medicine comprise the Honors Committee, which will convene to evaluate student papers and posters.

In accordance with program standards, the Honors Committee may award Excellence in Research in the Biological Sciences only if the student has completed all program requirements – including the workshop, required forms, research paper, and research poster – and if the paper is deemed of sufficient quality for publication in the *Journal of Undergraduate Research in the Biological Sciences*.

Judges will evaluate each paper and poster using established rubrics, assigning a score from 1 (poor) to 10 (superior) for each of the criteria, as well as an overall score ranging from 1-10.

Superior	Above Average	Average	Below Average	Poor
10	7-9	5-6	2-4	1

SCIENTIFIC PAPER AND POSTER CRITERIA:

1. **Scientific Merit:** The student addresses a well-defined, valid scientific question using a systematic approach. The scientific impact and significance of the work are clearly communicated.
2. **Scholarly Contribution:** The student demonstrates independent and intellectual contributions to the project, as outlined in the "Author's Contribution" section of paper. Results and interpretations are contextualized within existing literature to highlight the scholarly contribution.

3. **Presentation Quality:** The written and visual presentation is well-organized, with effective use of figures, tables, and/or graphics. Student demonstrates attention to detail and creativity in communication.
4. **Oral Communication & Engagement [for poster only]:** The student communicates clearly, answers questions confidently, and shows thorough understanding of and engagement in the project.

***JOURNAL OF UNDERGRADUATE RESEARCH IN
THE BIOLOGICAL SCIENCES***

Students will be notified when the online *Journal* 2025-2026 is complete and available for viewing in June.