

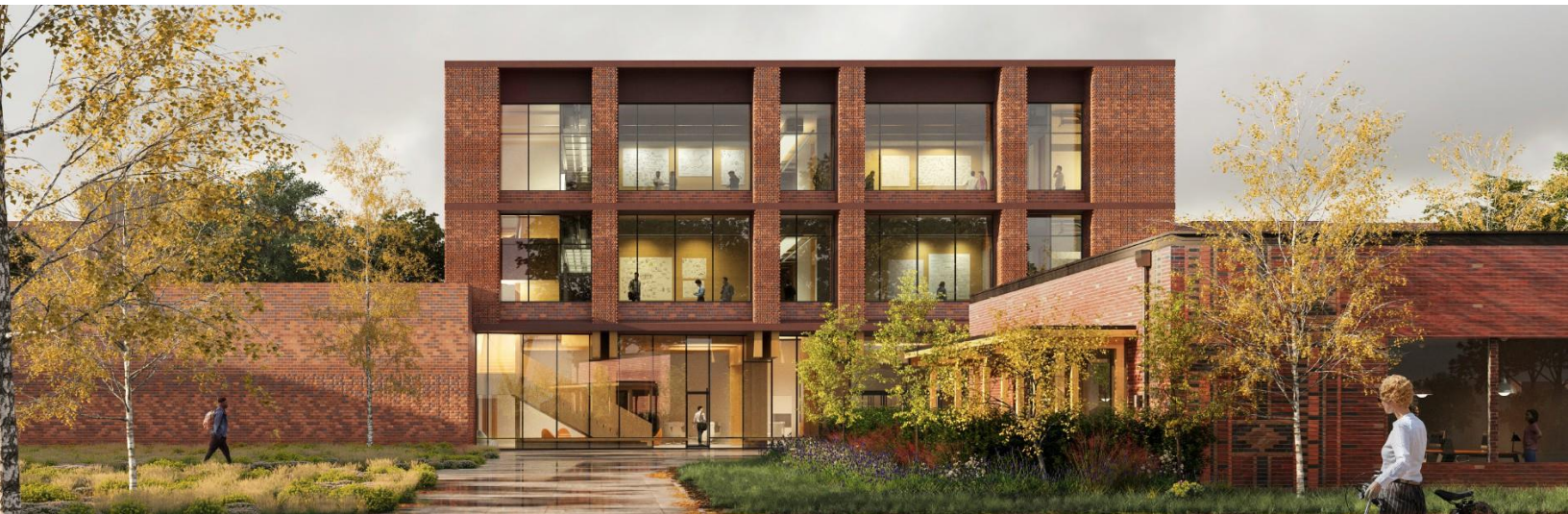


Office of the Provost and Executive Vice President &
Division of Research and Innovation

JEN-HSUN HUANG AND LORI MILLS HUANG COLLABORATIVE INNOVATION COMPLEX

Letter of Interest: Faculty Residency Program

Submission Deadline: Thursday, June 18, 2026



Letters of interest for the Huang Complex Faculty Residency Program are due no later than Thursday, June 18.

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THE OPPORTUNITY

Oregon State is building a new platform for research that crosses boundaries and accelerates impact. The Huang Collaborative Innovation Complex will be a transdisciplinary and intellectually vibrant catalyst for discovery and solutions. The complex will integrate supercomputing, experimental laboratories, rapid prototyping, digital twins, and immersive visualization into one unified environment. This platform is designed to move work from ideas to real-world application faster than traditional settings allow.

We are inviting faculty to help shape what residency means. This is not a space allocation process. It is an opportunity to co-design a program around ambitious work. We focus on research that requires capabilities no single department/school can provide.

We want to hear from you if all the below apply:

- Your work requires capabilities from multiple disciplines collaborating simultaneously, not sequentially; and
- Your research has the potential to transform how we address important challenges. However, you need integrated infrastructure and support to realize its full impact.
- You are interested in commercializing your research, which may include launching a startup or pursuing industry and corporate partnerships; **OR** you are interested in enhancing translation of your research which may include meaningful engagement with communities or government entities and pursuing or growing strategic partnerships with organizations outside of academia.

Alignment with Prosperity Widely Shared priorities is appreciated but not mandatory. You must clearly demonstrate the significance of your work and explain how the complex facilitates its success. **We are seeking projects that tackle major societal and planetary challenges.** These projects should have the potential to generate transformative benefits for communities and the environment.

What we're asking: Submit a brief (2-3 pages) Letter of Interest that describes what you're trying to accomplish and why the complex could make it possible. Strong responses will lead to conversations and co-design sessions that shape both your work and the residency program.

This is your chance to help build a platform for the work you've been trying to do.

WHAT ARE THE HUANG COMPLEX CORE CAPABILITIES?

Core capabilities will be phased in over time as the complex comes online. We will continue to invest, adapt to new opportunities, and expand services in partnership with faculty needs.

- **Advanced laboratories** will be developed and equipped to support cutting-edge experimental work. Areas may range from molecular biology to materials synthesis with automation capabilities that accelerate discovery cycles.
- **Supercomputing and AI infrastructure** are available across all disciplines, with consultation to help teams identify where computing can accelerate their work. No prior computational expertise required.
- **Integrated maker and prototyping facilities** will grow into a suite of capabilities. These include precision machining, additive manufacturing, electronics fabrication, and rapid prototyping. Teams can move from concept to testable prototype with increasing speed as capabilities are established.

- **Physical and digital twin environments** will enable teams to explore ideas, integrate data, and validate promising concepts before real-world deployment. This reduces risk and accelerates iteration as models, sensors, and platforms are established.
- **Immersive visualization and XR studio** will help teams experience data in three dimensions and engage stakeholders in simulated environments. Teams can communicate complex ideas to diverse audiences as immersive capabilities expand.
- **Flexible collaboration spaces** will support sustained cross-disciplinary teamwork. These range from dedicated project rooms to open innovation areas designed to facilitate spontaneous interaction as the building activates.
- **Transdisciplinary collaboration by design** brings together engineers, scientists, social scientists, business strategists, policy researchers, artists, humanists, and designers. They work together from the start, not in sequence.

Important: Residency is an enhanced engagement model. It provides co-location, a collaborative environment, structured programming, and sustained support for teams whose work benefits from deeper integration. Because space in the complex is limited, faculty and teams who are not selected for residency will still be able to access Huang Complex capabilities and resources.

WHAT MAKES RESIDENCY DIFFERENT: THE VALUE PROPOSITION

Residency is not about getting more space. Rather, it is a co-location model designed to accelerate your research, amplify your impact, and advance your career. It provides sustained, team-based collaboration and support that are difficult to replicate in traditional settings.

You do not need to have a background in computing or AI to participate. We invite faculty from every discipline, including those unfamiliar with advanced computing or AI. Discover how these resources can enhance and expand your research. Whether your work is in the arts, sciences, social sciences, business, or any other field, the Huang Complex offers powerful tools. You can tap into supercomputing, AI, and immersive technologies to open up new possibilities. These tools make it easier to achieve your goals and broaden the impact of your work. Here, you can experiment with new ideas using computing and test them in real-world settings. You can validate them through simulations and collaborate with partners. All of this happens within a supportive space built for cross-disciplinary teamwork. **We're here to help you unlock the full potential of your research.**

For Your Research

- **Accelerate discovery with integrated workflows:** Leverage supercomputing, AI, prototyping, and visualization to reduce turnaround time from weeks to days. Computing is a team capability, not a prerequisite. No technical background required.
- **Address complex problems across disciplines:** Work directly with researchers from other fields. Leverage expertise in business, economics, policy, social science, arts, humanities, and design. This makes technical innovations practical, economically viable, ethically sound, and trustworthy for communities.
- **Compete for larger funding:** Receive support for multi-college proposals and partnership development that strengthens applications and demonstrates team capacity to funders.

For Your Career and Impact

- **Accelerate translation:** Move from model to prototype to partner demonstration in weeks instead of years. Co-create with partners on-site in immersive environments that build trust and accelerate adoption.

- **Build national reputation:** Lead a flagship initiative with visibility beyond your discipline. Document collaborations and outcomes that wouldn't exist otherwise. Help define a model that other universities are watching.
- **Position for leadership:** Access research development support, computational capabilities at scale, and partnership networks providing co-funding. Gain experience managing multi-stakeholder initiatives and securing collaborative funding for leadership roles.

For Your Students

- **Transform student careers:** Students work in interdisciplinary, partner-engaged teams and gain access to industry mentors and government collaborators who provide career pathways beyond academia.
- **Attract top talent:** Cutting-edge infrastructure and interdisciplinary training draw strong graduate students. Undergraduates gain graduate-level experiences. Postdocs build portfolios demonstrating translational capacity.
- **Build lasting networks:** Students and graduate trainees develop cross-sector relationships that become professional networks and demonstrate team-based collaboration skills employers value.

For Early-Career Faculty

- **Accelerate trajectory:** Access infrastructure and partnerships that typically take years to build. Receive mentorship on proposals and team building.
- **De-risk ambitious ideas:** Test concepts with pilot support before major proposals. Work in a collaborative environment with peers navigating similar challenges.
- **Build for success:** Develop funding track record for major awards. Gain student recruitment advantages and demonstrate leadership that strengthens tenure cases.

HOW RESIDENCY WORKS

Term: Five years with annual reviews and comprehensive evaluation at Year 3.

What residents commit to:

- Active physical presence (minimum expectations defined in residency agreement)
- Participation in community programming (monthly forums, quarterly demos, annual reviews)
- Student engagement and mentorship
- Contribution to collaborative culture and responsible resource stewardship

What the complex provides:

- Dedicated space aligned with team size and research needs
- Coordinated pathways to use computational infrastructure, prototyping facilities, and visualization environments, with residents receiving deeper integration and prioritized co-design support
- Research development and partnership facilitation support
- Community programming and external visibility
- Student talent pipeline coordination

Year 3 review determines:

- **Renewal:** Continue for remainder of term based on research progress, funding pipeline, and community contribution

- **Conditional:** Improvement plan with specific benchmarks
- **Exit:** Orderly transition with 12-month notice

Successful Year 3 review demonstrates:

- Active external funding or credible pipeline (submitted proposals, partner commitments, translation milestones)
- Evidence that residency-enabled work is not possible elsewhere (new collaborations, integrated use of complex capabilities, partner engagement)
- Consistent physical presence and participation in community programming
- Student mentorship and training contributions
- Responsible stewardship of space and shared resources

Space Utilization and Support Mechanisms: Space allocation will be based on many factors including research-dedicated FTE to support the research advancement goals of residencies. Cost recovery could potentially involve a designated percentage of grant indirect costs, and support for moving expenses or specialized equipment might be provided through PI grants or college cost-sharing, depending on agreements reached with leadership.

WHO SHOULD SUBMIT A LETTER OF INTEREST

We especially encourage teams spanning multiple colleges. Cross-college collaboration is central to the complex mission. Whenever possible, please apply as a team (two or more faculty PIs). Teams that bring together diverse perspectives are positioned to tackle challenges that single disciplines cannot solve alone. Examples include liberal arts with engineering, science with business, or design with health. Teams may include students, postdoctoral scholars, and professionals.

Submissions from individuals are welcome. If you apply as an individual, please describe the ideal team you would form. Include disciplines, roles, and prospective partners. Explain how that team could be developed through the residency co-design and follow-up process. Teams that bring together diverse perspectives are positioned to tackle challenges that single disciplines cannot solve alone.

We encourage submissions from faculty teams whose work could be fundamentally enabled by what the complex offers. Strong teams will:

- **Cross disciplinary boundaries** in ways difficult to sustain in traditional settings
- **Sustain collaboration** with partners from industry, communities, government, or nonprofits
- **Leverage integrated access to computational and/or physical infrastructure** for rapid iteration
- See **business strategy, policy frameworks, social science insights, integration of arts humanities, or design** as essential to solving complex problems
- Create **clear pathways to real-world application** through technology transfer, policy, community implementation, creative practice, or public engagement
- Include **early-career faculty members** with an ambitious vision who would benefit from infrastructure access and a collaborative community
- Opportunities for **students and graduate trainees**

We welcome teams to include faculty across OSU's statewide system, including Cascades and Ecampus, as well as researchers working closely with Extension and Experiment Station networks. The complex is designed to serve all of Oregon State.

Your concept may be exploratory. You do not need secured funding or a fully developed project plan. **We are interested in ambitious ideas that could grow with the right support.**

WHAT WE WANT TO LEARN FROM YOU

Submit a Letter of Interest (**2 to 3 pages**) addressing the following:

1. What are you trying to accomplish?

Describe the **grand challenge**, opportunity, or question driving your work and why it matters now. What would success look like, and who would benefit?

2. Why does the complex matter for this work?

This is the key question. Explain what the Complex uniquely enables for your concept. If you are seeking residency, explain why co-location and a structured residency model are essential, not just helpful. (Faculty can access Huang Complex capabilities without residency.)

Be specific about:

- Physical infrastructure or computational needs
- Required collaborations across disciplines
- Partnership engagement or co-creation with external organizations
- Prototyping, visualization, or translation support
- Community activation or student engagement opportunities

Teams are NOT required to incorporate a computational component. If relevant, please explain how supercomputing and AI resources may benefit your research in one of the following ways:

- **Direct use of computational resources:** How could access to supercomputing or AI tools enhance and expedite your research? Examples include larger-scale simulation, data-intensive analysis, AI/ML modeling, digital twins, or faster iteration cycles.
- **Indirect use through AI-enabled systems:** How could AI-enhanced capabilities in the Complex accelerate your work? Examples include automated wet labs, AI-assisted prototyping, intelligent sensor networks, or computational design optimization.

Strong answers explain why these capabilities are essential to your research goals, not just convenient.

3. Who is involved, and who else is needed?

Describe your current team: List faculty, graduate trainees, students, and partners already involved. What does each bring to the work?

Identify your ideal additions: Who else would you want at the table to maximize your impact as a Complex resident? Consider:

- Disciplines or expertise that would unlock new approaches
- External partners (industry, community, government) who could co-create solutions
- Technical capabilities you need but don't currently have access to
- Perspectives that would make your work more robust, ethical, or implementable

We're interested in both who you have and who you aspire to engage. Residency is designed to help you build the team you need, not just formalize the team you already have.

4. What is the pathway to impact?

Describe your pathway from research to real-world use. Who are the ultimate beneficiaries of this work? How will it reach them and create change?

Your pathway might include:

- **Technology transfer:** commercialization, licensing, startup formation
- **Creative dissemination:** exhibitions, performances, public scholarship, media engagement
- **Policy influence:** informing regulations, shaping public decisions, guiding resource allocation
- **Community implementation:** adoption by specific communities, tribes, organizations, or regions
- **Practice change:** shifting how practitioners work in healthcare, education, agriculture, or other fields
- **Open resources:** datasets, software, protocols, or tools made freely available
- **Standards and infrastructure:** contributing to technical standards, shared platforms, or public goods

It's okay if your pathway evolves. We're interested in your current thinking about how this work matters beyond publications.

5. What would you want to explore with complex leadership?

What investments and support would be required for success?

Briefly describe what you would need beyond a typical department setting, including:

- **Lab/facility and equipment needs** (wet labs, prototyping, instrumentation, compute, data, safety/security)
- **Faculty development and translational support** needed for transdisciplinary work (supercomputer/AI development, proposal development for larger awards, industry/community partnership building, entrepreneurship/commercialization pathways, and opportunities to diversify funding and revenue)
- **List questions or uncertainties** you'd want to discuss in follow-up conversations.

Examples:

- Specific training, infrastructure or space requirements
- Partnership models or agreement structures
- Student engagement opportunities
- Funding or sustainability questions
- Connections to specific communities or industries

Optional Attachments

- **CVs/bio sketches** for key team members (5 pages max each, NIH or NSF format preferred)
- **Letters from active partners** (1 page each, max 3) only if partnerships are already established

WHAT HAPPENS NEXT

Review Process

Letters will be reviewed by complex leadership. **This is not a scored competition.** We are looking for alignment with the complex mission, potential for impact, and clarity about what residency would enable.

Follow-Up

Selected teams will be invited to:

- **Listening sessions** to explore concepts in depth
- **Design workshops** to refine ideas and co-develop operating models
- **One-on-one consultations** with complex leadership and technical staff
- **Team and resource matchmaking.** For example: connecting to computing-enabled collaboration networks, relevant campus leaders, and discussion of potential future seed-funding opportunities that could grow out of LOIs.
- **Pilot activities** that may begin before the building opens

What This Informs

Insights from Letters of Interest will shape:

- Residency program structure and expectations
- Infrastructure priorities and resource allocation
- Partnership models and support services
- Space planning and configurations

Not all submissions will advance immediately, and that is expected. Some concepts may be too early-stage. Others may not require what the complex offers or may not align with initial priorities. Submitting a Letter of Interest does not guarantee residency. However, it ensures your voice is heard as we design the program.

TIMELINE

Milestone	Date
Submission portal opens	May 18
Information session (in person)	May 19, 9:00 a.m. to 10:00 a.m. Hallie Ford 115
Information session (virtual)	May 21, 10:30 a.m. to 11:00 a.m.
Optional consultations	May 25 through June 12
Letters of Interest due	June 18
Target date for review completion	July 31
Follow-up conversations begin	August 5

SIGN UP

[Fill out this form](#) to register for information sessions, submit questions, receive updates and information about how to submit your Letter of Interest.

ISSUED BY

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