

Views of the planned UPMC Vision and Rehabilitation Tower—in the Pittsburgh skyline and (top right) from Boulevard of the Allies.

Architecture renderings by HOK



SNEAK PEEK

At the moment, the UPMC Vision and Rehabilitation Tower is merely a gaping hole in the earth, clattering with construction in the shadow of UPMC Mercy. Come 2022, a nine-story, 410,000-square-foot facility will put Pitt ophthalmology researchers under the same roof with patients in an extraordinary space.

The team at HOK, the architects for the project, has carefully selected lighting, materials, textures, and audio throughout the planned building to help patients with visual impairments in navigating the spaces. For example, Chris Downey, a blind architect at HOK, introduced elements like sound as wayfinding.

Pitt's Department of Physical Medicine and Rehabilitation, chaired by Gwendolyn Sowa, was instrumental in the process, as well, and will have a presence on the fourth floor of the completed facility. Neurorehabilitation services will aid patients with low vision. A space for Pitt's Rehab Neural Engineering Labs will connect those investigators with ophthalmology researchers and clinicians.

The rehabilitation expertise is key; many diseases affecting vision also involve other senses, as well as balance, mobility, and cognition, explains José-Alain Sahel, Pitt's chair of ophthalmology.

"It's a bold plan," says Sowa. "We believe that no other location in the world has paired vision and rehabilitation together in this way."

Sahel says patients will benefit from new imaging technologies, an area of great interest for his department. When he joined Pitt three years ago, Sahel's very first recruit was Ethan Rossi, a world leader in what's called adaptive optics. (Kunal Dansingani, Syed Mahmood Shah, and Jay Chhablani have also since joined the clinical imaging dream team.) Rossi is developing tools to visualize individual cells within a patient's retina, a capability that would enable Pitt ophthalmologists to quantify how well a given therapy is working. It could also help detect disease much earlier, which could improve outcomes.

Sahel is a firm believer that treatment is a beginning, not an end. Thus, the campus will feature a rooftop garden with test ramps and stairs, as well as an apartment and an indoor street scene, dubbed the street lab. In these spaces, patients will put new therapies and assistive technologies through the paces of everyday life, safely, with the support of the rehabilitation team.

The street lab will feel a bit like a TV set—and in a sense it will be, cameras training on patient volunteers to measure their progress, step by tentative step, on the path toward a better drug or prototype, and a more independent life. —*Elaine Vitone*



UPMC Mercy is gaining the new Uptown facility as part of UPMC's \$2 billion investment in new specialty hospitals in the region.



ABOVE: A view from the hospital, expected to open in 2022.

RIGHT: The building is designed to encourage collaboration, from the ground floor to the rooftop garden.

