LONDON, England (CNN) -- A spectacular medical center that breaks new architectural ground for scientific research facilities has been unveiled in east London.

The £45 million ($82m) Institute of Cell and Molecular Science at Queen Mary College, part of the University of London, provides workspace, laboratory facilities, seminar rooms and a lecture theatre for 400 scientists.

Queen Mary principal Professor Adrian Smith said he hoped the Will Alsop-designed building would act as a magnet to attract the world's best scientific talent to the college.

"There is simply no other medical science facility like this in the UK," said Smith. "It represents an innovation in how medical science is conducted."

The Whitechapel landmark, built on the site of a former car park in the shadow of the Royal London Hospital, features an open plan 3,800 square-meter research floor below ground level that is intended to foster better integration between scientists and encourage a cross-fertilization of ideas.

Above ground a three-storey glass pavilion, containing office space and meeting rooms, and the six-storey "Wall of Plant," which hosts a 400-seat lecture theatre and the building's electronic and mechanical services, are linked by a glass bridge over a spacious open mews.

But it is the radical architecture that sets the center apart from similar institutions.

Seminar and meeting rooms in the glass pavilion are housed in surreal abstract pods that float over the laboratory floor.

"The Centre of the Cell" is a giant orange molecule that houses a bioscience education center for local school children. "Cloud" is a white ellipsoid containing two meeting rooms, "Spikey" is an irregular star-like black shape while the black and white "Mushroom" links to the bridge and acts as a reception area.

Bold colors are used throughout the building, most dramatically in the deep green lecture theatre, which is dotted with bright red seats, creating a poppy field effect.
The pavilion’s glass walls give it an air of transparency while colored panels designed by artist Bruce McLean depict science-themed abstract images.

“Our aim has been to create a space that avoids the traditionally sanitized environment of laboratory research buildings,” said Alsop, who described his creation as a “box of delights.”

"Here the very fabric of the building speaks about science and is conducive to better science by bringing researchers together. This building offers an uplifting environment for research."

The Institute will bring together seven research centers working in areas such as stem cell biology, neuroscience and infectious diseases.

But it is also intended to provide a direct link between scientists and the local community. Professor Peter Kopelman, deputy warden of Queen Mary's School of Medicine and Dentistry, said that the center was committed to targeting specific local health problems.

London’s east end, one of the most deprived areas in the UK, has 10 times the national average cases of tuberculosis and the highest national frequency of diabetes.

Peter Treblcock of engineering company AMEC, which collaborated on the project, described the Institute as “classic Will Alsop work."

"This inspirational building breaks the mould. There is no laboratory remotely like this anywhere in the world,” said Treblcock. "It is an antidote to the rationalism that pervades in most laboratory environments.”