In 2019 the Salk Institute launched the Campaign for Discovery—a seven-year, $750 million effort to accelerate Salk’s critical research.

The Campaign is focused on driving discoveries in six Centers of Excellence: Cancer Center, Center for Healthy Aging, Hess Center for Plant Science, Center for Neuroscience, NOMIS Center for Immunobiology and Microbial Pathogenesis, and Crick-Jacobs Center for Theoretical and Computational Biology.

To continue to lead the field in these areas, Salk is recruiting new faculty and other experts, investing in new technologies, and creating new collaborative spaces, including construction of the planned Joan and Irwin Jacobs Science and Technology Center.

Six Centers of Excellence

National Cancer Institute-Designated Cancer Center

Exploiting cancer’s vulnerabilities

Salk scientists look at cancer holistically—focusing not only on the tumor cells themselves, but also on their surrounding tissues, the immune system, the microbes that live within us, and how each individual’s environment and habits influence their risk and therapeutic responses. These are the elements that, together, allow tumors to form, grow, spread and resist standard therapies. With this approach we are revealing new universal vulnerabilities that could be targeted with new, customized therapeutic weapons that may apply to many cancers, including pancreatic, brain, lung and breast.

Center for Healthy Aging

Leveraging diversity to improve health span

It’s not enough simply to live longer, we want to live healthier. Salk is investing in research that examines diverse influences on aging at every level, from molecular drivers to lifestyles and the environment. Our scientists are targeting these drivers of aging with personalized interventions to improve resilience and increase health span—the time we spend living disease-free. We want new health span-enhancing interventions that arise from our research to work for everyone, not just the privileged few.

Crick-Jacobs Center for Theoretical and Computational Biology

Using computation and engineering to solve biology’s biggest challenges

When scientists use machine learning and other powerful computational approaches, it’s like they are putting on a new, more powerful set of reading glasses: information that was once fuzzy is now crystal clear, and patterns that have evaded our detection emerge from the background. Salk has long been ahead of this curve. But we are now taking these efforts further, adding new technologies and expertise. The beauty of these approaches is that they can be applied to any type of research: cancer, immunology, metabolism, neuroscience, aging and plant biology. Better computation lifts all boats.

Hess Center for Plant Science

Optimizing plants to help save the planet

Global climate change is here. In the face of a crisis, we can’t simply maintain the status quo. Salk scientists are leveraging the Institute’s long history of pioneering discoveries in genetics, epigenetics, plant sciences and computational biology to develop Salk Ideal Plants®. These plants are a new generation of food crops that improve soil health; thrive in hotter, drier, less-than-hospitable environments; and help mitigate climate change by capturing excess carbon from the atmosphere and storing it deep in their roots.

NOMIS Center for Immunobiology and Microbial Pathogenesis

Balancing inflammation

As important as the immune system is for protecting us from pathogens and other dangers, it can be a double-edged sword. Immune cells can destroy cancer or help it thrive; they can defeat pathogens or generate dangerous autoimmune responses. Chronic inflammation is the root of many diseases, including cancer, heart disease, type 2 diabetes, obesity and neurodegenerative diseases. Salk scientists are deciphering the complex interplay of molecules, signals and cells to determine what tips immune function from helpful to harmful—and how to tip the scale back to preserve health.

Center of Excellence for Neuroscience

Adapting our brains to fit today’s world

Our brains manage to cope amazingly well with the many stresses we experience every day—most of the time. But eventually, age and relentless overload exceed the brain’s ability to cope. What determines the tipping point between coping and crisis? Salk scientists are studying how some brains adapt well and others don’t. In one example, a team is exploring the roles social interaction and isolation play in our mental and physical health. Answers to these questions may ultimately pave the way for new ways to prevent or treat anxiety, depression and other mental health conditions.

Join us

Science is a collaborative pursuit, and we invite you to join us in accelerating life-changing discoveries: www.salk.edu/campaign.