Two chandelier-cell mysteries are solved

One look at a chandelier cell explains its name. These vital components of the brain look like elaborate chandeliers suspended among crowds of pyramidal cells. The plentiful excitatory neurons that relay signals in the cortex. Unlike the chandelier in your dining room, the ones in your brain have long arborizations and each, intriguingly, makes a synapse with the portion of a single pyramidal cell from which its massages are propagated.

Francis' Clock. 43 years ago grasped the physics of a single chandelier cell, being inhibited by inhibitory. When "what" is the signal of up to 500 excitatory cells. Yet these powerful inhibitors have remained mysterious. Not until 2009 did anyone know where in the brain they were located, let alone their positions in the cortex.

Recent studies at Cold Spring Harbor Laboratory have now solved those puzzles and more, in a paper appearing in Science, including spectacular images.

In 'precocious' tomatoes, a gene to prevent premature flowering

The precise control of flowering in tomato plants is being picked apart by Assistant Professor Zach Lippman. Previous research from his lab showed that a single gene was involved in that particular clock" stimulated by sunlight and temperature. Their latest discovery, published in Nature Genetics, is a gene that acts as a checkpoint in this clock, preventing it from locking too fast.

Lippman's lab discovered a mutant tomato plant that produces single flowers instead of multi-flower inflorescences. The gene responsible is called, appropriately,時間を抑制する遺伝子（NAA50）." (TMF). If flowers appear too quickly there may not be enough energy provided from the leaves to support them and the fruits that follow. The normal function of TMF is to delay flowering, so that it doesn't happen too precociously." Lippman notes. By studying the genetics of flower production, it may be possible to manipulate agricultural crops like tomato to improve yield.

Technical tour de force unlocks genome of bread wheat

An international team of scientists including CSHL Professor Richard McCombie and others from the UK, and Germany, are unveiling the first comprehensive analysis of the bread wheat genome. The study, appearing in Nature, opens up a valuable data resource for wheat researchers to learn more about this important food crop and improve wheat agriculture through gene discovery.

Bread wheat (Triticum aestivum) has a large and complex genome, including over 50,000 genes. Importantly, the team found several genes associated with various factors affecting crop productivity, including nutritional content, disease resistance, and yield.

Lustgarten pancreatic cancer lab founded at CSHL

Great progress has been made in diagnosing and treating some cancers, not so much for pancreatic cancer. Malignant pancreatic tumors continue to pose a frightening, and usually fatal, threat. Now, diagnostic and are extremely difficult. Last year the importance of a recent announcement by CSHL and the Lustgarten Foundation that the largest private foundation dedicated to funding pancreatic cancer research has paired with CSHL to establish a world-class lab on our campus, with research focusing on early detection, improving the delivery of drugs to tumors (notoriously difficult in pancreatic cancer) and development of new drugs. Headed by Dr. David Tuveson, the Foundation's director of research and deputy director of Lustgarten, this lab is the first of its kind at CSHL.

Double Helix Dinner raises $3.9m

The 34th Double Helix Awards dinner was held in New York City this evening (Thursday). The honorees were Arthur Levinson, Mary Lindquist, and Michael J. Fox. The event raised 3.5 million dollars in support of research at CSHL.