At no time since the late 1970s has our national discussion turned as consistently as it did in 2008 to the subject of fuel consumption and alternative energy technologies. As the price of a barrel of crude oil soared to nearly $150 at the height of the summer season, the energy issue was thrust, welcome or not, directly into 2008 election politics.

In forums across the nation, energy policy provided occasion for scientists, entrepreneurs and other innovators to bring to public attention a plethora of new ideas and vital information essential for the formation of responsible opinion about America’s and the world’s latest energy “crisis.”

One notable instance was a fall meeting of Cold Spring Harbor Laboratory’s (CSHL) President’s Council. Following a spring gathering that focused productively on the issue of plant research in the context of ever-growing world food demands, the council’s fall assembly brought impressive brain power to bear on the subject of alternative fuels. “With energy costs on everyone’s mind, the subject couldn’t have been more timely. I’d wager we all learned more about the science of biofuels, and the prospects for their use, than we might have expected in a single weekend. I certainly did,” concluded Jim Stone, chairman of The Plymouth Rock Company, who serves as co-Chair of the President’s Council.
Comprising distinguished individuals in a broad spectrum of endeavors, the council has the vital function of funding, through its members’ annual contributions of no less than $25,000 each, a group called the CSHL Fellows. Through this fellowship program outstanding young Ph.D.s are awarded the resources to begin independent research at the earliest stage of their careers. The program jump starts their research careers and accelerates their innovative contributions to biomedical science.

At the council’s October meeting on the Banbury campus, keynote speaker John Hofmeister, among the world’s most knowledgeable energy consumption experts and the recently retired president of Shell Oil Company, spoke about the launch of an important not-for-profit organization, Citizens for Affordable Energy. This grass roots-based initiative seeks to disseminate unbiased information about energy resources, including oil, coal, clean coal power, natural gas, biofuels, solar, wind, hydrogen and nuclear energy production, so that all Americans will have the knowledge to form rational opinions about national energy policy.

In a talk the following day, CSHL Professor Rob Martienssen, a world-renowned expert on plant genetics and epigenetics, reviewed biofuel types for council members: biodiesel from plant oils, ethanol from starch/sugar, ethanol from cellulose (biomass), and diesel and petrol from cellulose/sugar. Dr. Martienssen focused on issues associated with growing biofuel crops, detailing steps that are being taken to extend fertility and yield.

A question raised by the decision to devote croplands to fuel production was explored in a panel discussion, “Food vs. Fuel: A Necessary Trade-Off?” led by Jim Garrels, CEO of Garbrook Knowledge Resources. Panelist Barbara Wells, president and CEO of ArborGen, spoke of the advantages of forests as a biomass resource, particularly with today’s technologies for improving yield, stress tolerance and wood quality. William Hitz, a senior research fellow at Dupont/Pioneer, discussed converting corn crop waste to ethanol.

A second panel, “Mining for Oil in Unlikely Places,” was led by William Haseltine, founder of numerous biotechnology companies and a former chairman of CSHL’s President’s Council. Harrison Dillon, president and chief technology officer of Solazyme Inc., discussed how his renewable oil production company harnesses the power of microalgae to produce clean fuels, chemicals, food oils, and health and wellness products. Robert T. Do, CEO of Solena Group, Inc., offered an overview of the correlation between CO₂ and global temperature. The Solena Group’s aim is to reduce greenhouse gases using plasma technology and algae systems to produce electricity.

At the conclusion of these substantive discussions, council members headed out into the bright sunshine to CSHL’s Uplands Farm, about a mile from the main campus, for a tour of greenhouses and corn fields, where, along the way, they were reminded of an important bit of history. Timothy Mulligan, the farm’s manager, regaled the group with stories of CSHL’s Nobel Prize-winning discoverer of “jumping genes,” Barbara McClintock. It was a moment in which to reflect on how the work of one of CSHL’s most honored scientists set the stage for so many contemporary innovations in plant genetics, including those that will help the next generation of alternative-energy pioneers. Diane Fagiola

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**CSHL President’s Council Members 2007–2008**

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<th>Mr. David G.P. Allan</th>
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<td>Ms. Amy Anthony</td>
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<td>Drs. Marsha and Henry Lauffer</td>
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