

Obama ‘precision medicine’ plan would be boon to Mass.



MARK WILSON/GETTY IMAGES

Elana Simon, a Harvard student, introduced the president at a White House event highlighting a funding proposal for precision medicine.

By Jack Newsham | GLOBE CORRESPONDENT JANUARY 30, 2015

The Massachusetts life sciences sector, a world leader in developing gene-based therapies and diagnostics, is ready to capitalize on a new program proposed by President Obama to invest in medical research into treatments tailored to an

individual's genes.

Obama said Friday that he will seek \$215 million for a “precision medicine initiative” to fund research in the fight against cancer and build a database with the genetic information of one million volunteers that researchers could use to develop individualized therapies.

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“That’s the promise of precision medicine — delivering the right treatment at the right time, every time, to the right person,” Obama said in unveiling the proposal Friday.

Several executives from genomics-focused Boston biotech firms were in attendance, including David Altshuler, former director of the Broad Institute in Cambridge and now head of research at Vertex Pharmaceuticals; Foundation Medicine chief operating officer Steve Kafka; and Tony Coles, chief executive of Yumanity Therapeutics. The president was introduced by Elana Simon, a student at Harvard University who has conducted cancer research and was diagnosed with a rare form of liver cancer as a teenager.

Boston area companies and institutions have been in the forefront of genomics research for the past quarter century.

Citing the work of Harvard University, the Massachusetts Institute of Technology, the Broad Institute, and teaching hospitals such as Massachusetts General and Brigham and Women’s, Dr. Robert Green, a medical researcher at the Brigham, said Boston would have a “leg up” when it came to conducting research that could be funded by the initiative. Green leads the [MedSeq Project](#), a study of the broader effects of incorporating gene sequencing into medical care.

“We are the leaders that President Obama was talking about,” Green said.

It could take longer for companies to see the benefits of new research spending. Jeffrey Leiden, chief executive of Vertex Pharmaceuticals, said it took nearly three decades for one of his company’s therapies for cystic fibrosis to progress from a university laboratory into the hands of doctors. Still, he said the initiative — especially its compilation of a genomic database — could accelerate the process.

“This announcement is really about the first step. It’s an announcement that says let’s fund, at the federal level, a larger initiative that will allow us to find new targets,” Leiden said. “It’s not going to be next year, but what we will be able to do once this data is available is mine it for these new targets.”

Large institutions and drug companies often have their own databases of genetic information that they use to conduct research on things like tumors and neurological diseases such as Alzheimer’s. Obama’s proposal would draw from some of that data, as well as collect information from new volunteers, said Dr. Francis Collins, the National Institutes for Health director.

The funding would be a part of the president’s 2015 budget, and would need to be approved by Congress. Most of the money, \$130 million, would go to the NIH to develop a national database of patient volunteers’ genetic profiles that could be used by researchers. Another \$70 million would fund new cancer research, and \$10 million would help the Food and Drug Administration increase its knowledge of individualized therapy to better regulate the field.

“The wonderful part about this initiative is that it has bipartisan support,” said Coles, the Yumanity Therapeutics head, who noted that Obama cosponsored a similar bill in 2005 and 2007. “Both sides of the aisle would like to see support for this area.”

Several top health officials from the Obama administration were present for the president’s remarks, as was Senator Lamar Alexander of Alabama, a Republican, who said he looked forward to learning more about the proposal. Basketball great Kareem Abdul-Jabbar also attended and drew a crowd. According to the White House, he credits his recovery from leukemia to precision medicine.

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