

## Musings **Musings on genome medicine: the Obama effect redux** David G Nathan and Stuart H Orkin

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## Abstract

From the point of view of genome medicine, Barack Obama has made two vital policy decisions: he has chosen a new director of the National Institutes of Health, and his proposed change in United States healthcare policy will have profound effects on genome medicine and, indeed, all of academic medicine.

Barack Obama has been President of the United States for eight months, and the change in the public mood is palpable. The misguided and misbegotten George W Bush regime is slowly fading from our collective and still traumatized memory. The fresh faces and far more inspiring proposals of the Obama White House dominate the public scene.

From the point of view of genome medicine, Obama has made two vital policy decisions, one of which we mentioned in our initial commentary on the Obama effect (*Genome Medicine*: volume 1, issue 3). He has finally chosen a new director of the National Institutes of Health (NIH). Francis Collins is a near perfect choice from our point of view. He is a highly accomplished clinical investigator with long experience at NIH who has made outstanding contributions to genome medicine from cystic fibrosis to progeria. He brought the public sequencing of the human genome to fruition on time and on budget, and he splendidly led the National Human Genome Research Institute in which he developed an excellent intramural program from scratch. The morale of the members of that program is outstanding.

There is a bit of caviling, of course. There are some who hold that Collins' commitment to large-scale sequencing efforts embarrasses individual investigator-initiated research grant budgets (discussed in *Genome Medicine*: volume 1, issue 1), but we believe that he has the right sense of balance between traditional investigator-initiated and large-scale research priorities. His own interests and record should guarantee that he will be committed to clinical research - a critical issue and one that is not, in our view, salvaged by huge consortium efforts such as the Clinical Translational Science Awards program initiated by Collins' predecessor, Elias Zerhouni. There are also some who resent Collins' freely acknowledged adherence to evangelical Protestantism. They cannot believe that an open-minded biomedical scientist could be 'encumbered' by irrational faith. Collins has written about his faith, and that book has, perhaps, stirred up concerns about his capacity to analyze data without prejudice. We have known Francis Collins for decades and have no such concerns. We believe he is a splendid choice and will be a fine influence on the NIH campus, in the broad academic biomedical research community, and above all in the halls of the Congress where lurk his most influential potential critics and supporters.

The proposed change in United States healthcare policy is a second major initiative of the Obama administration that will have profound effects on genome medicine and, indeed, all of academic medicine. We will not belabor the details of the Obama proposals because they change as the Congress, which has been charged with the development of the program, deals with the Gordian complexities. The nubbin of the problem is fairly simple. The United States has the most expensive and probably the least efficient healthcare system in the developed world, and our healthcare record is among the worst in the developed world. Forty-five million US citizens lack any health insurance and millions more are vastly under-insured. We are very good at new technology accrual and application and very bad at preventive medicine and primary care. We desperately need to expand the latter while preserving the former and simultaneously reducing the rate of acceleration of our already burdensome healthcare costs. Congress has dealt with the issue by fruitlessly searching for a population to tax heavily enough to pay for a huge extension of medical care insurance, but has done nothing to accomplish the most essential missions: the lowering of costs and an effective reduction of the acceleration of costs. Both of these requirements are politically unpalatable because they require reductions in payments to physicians, hospitals and all their employees, pharmaceutical companies, and medical device companies. Some states, our own included, have become highly dependent on health care and healthcare research to sustain their economies. The skill in all of this is to accomplish all of the necessary cost controls without destroying the financial fabric of academic medicine and the teaching/research hospitals in which most clinically relevant discoveries are made. If a blunt axe is taken to the budgets of major teaching/ research hospitals, the entire NIH effort will be brought to its knees and clinical research, including genome medicine, will be truncated.

Thus far, Obama has let the Congress run with this ponderous problem. But the present session of Congress came to a wheezing close in August, and none of the bills that have emerged are anywhere close to being useful. It seems that the White House simply wants almost any bill, even two totally different bills, to get through both the House of Representatives and the Senate. Then the bills can be reconciled in a small conference committee. And there the President and his advisors can have a decisive influence. Those of us writhing on the sidelines gaze at this Kabuki theatre with mingled doubt and hope. If Congress and the President don't get this right, we will have no better health care, at even more crushing cost, and a highly endangered biomedical research program in which genome medicine hangs on by its fingernails. The next few months will tell the story. It is impossible at this juncture to predict the outcome.

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