

## **Train students to use big data**

Combining big data with personalized medicine is an unprecedented opportunity that will probably be cheaper than current practices in the long term, particularly given the questionable effectiveness of many medications (see *Nature* **517**, 540; 2015). Success will depend on training the next generation of clinicians and data scientists to deploy terabytes of data to select diagnosis and treatment strategies from a range of options.

Today's undergraduate and graduate courses in bioinformatics need to embrace data-analytics programmes that are geared towards generating a new type of medical specialist — one who no longer needs to see patients, just their data.

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