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EDITORIAL

Medical genomics

The new academic season has started. The first in which the treasure trove of the Human Genome Sequence is available to the scientific community, at least as published by the Human Genome Project Consortium and by Celera Genomics in the mid-February issues of *Nature* and *Science*, publicly accessible through NCBI and EBI and at a subscription-fee (reduced for Academic consortia) from Celera.

This will in the first place benefit laboratories worldwide who are in hot pursuit of their favourite disease gene. Much painstaking mapping, sequencing and puzzling to piece together even the 'wildtype' form of the culprit-at-hand, will now be replaced by a few mouse clicks and a little wait.

Those who argue that the advances in information technology predominantly benefit the already-advanced research communities in Europe and America, should keep a close track of where the gene discoveries come from. The first indications are that relieving the need for extensive mapping and bulk sequencing, rather benefits the many smaller laboratories worldwide. This will yield an increasing flow of discoveries from 'less privileged' regions, notably in and around Asia.

Another growth area will be much closer at home: The introduction of the new paradigms into the interface of geneticists and the clinic. The key question here is how to raise the interest of the colleagues in other clinical specialties. The worst case scenario is that heels will go into the ground to resist the 'take-over of genomics'. The best case scenario is that research geneticists manage to convey their enthusiasm for the increased capabilities, offered by genomics approaches. This will allow one to define disease much more holistically rather than just a single base pair changed in a single gene. This holistic perspective will tremendously improve prognostic value, the big next hurdle to take for diagnostic genetics.

Indeed, in the wake of the spreading of genomics in the clinical fields, the introduction into the medical curriculum of the new approaches and possibilities – and also their limitations – will be the major challenge of the next decade. Human geneticists, with their natural tendency to take not only the patient but also the family or even a wider group of care givers into account, must play an important role in this grafting of present research opportunities into future, well-guided, practical health care applications.

In all these fields, which collectively might become called Medical Genomics, the *European Journal of Human Genetics* aims to assist in the debate and progress, by publishing the fruits of research and reporting diagnostic, prognostic and therapeutic advances, and equally paying attention to studies and viewpoints on the ethical, socio-political, legal and economic aspects of this maturation of our metier.

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