

The logo for "IL DENARO", with "IL" in a smaller font and "DENARO" in a larger, bold, serif font. A stylized red graphic element resembling a pair of lips or a decorative flourish is positioned between the two words.

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Headline: Olympics of bioinformatics triumphs a researcher Naples

Byline: n/a

What is the best method so far developed by science to identify the genetic signature of the disease? To find an answer to the international scientific community has launched a competition open to researchers around the world.

Objective comparison of results, maximum transparency, several conditions to be identified, these are the ingredients of Sbv Improver, the public competition created by researchers at IBM Research and Philip Morris International to define the state of the art research on genomic markers. Well, to get on the top step of the podium of the prestigious contest was the Neapolitan researcher Mario Lauria, a little over a year under the CoSbi, the center of research in bioinformatics Rovereto born from the partnership between the University of Trieste and Microsoft Research. From Naples he moved to the far north. "But in spending review and cuts of various kinds, in science - jokes to a certain point Lauria - nothing is stable. For now I have a contract for three years. " The method for setting the markers and their use for diagnostic purposes developed by the scientist was awarded first place in one of the four sottosfide of the competition, those relating to the identification marker of multiple sclerosis, and the second-best ever. "It was a challenge very beautiful - says Lauria - I hope that this recognition now serves to Italy to attract investment in a field that is becoming more competitive."

Since he's drawn the map, now in the distant 2000, we can say that the human genome represents the zenith and nadir together medical research. Of each disease, at least in theory, it is possible to identify the genetic identity card.

It is observed that, starting from a "photograph" of the expression levels of all genes of the human genome over 30 thousand obtained for a tissue of interest, and comparing such data relating to a certain pathology of patients with those from healthy individuals, it is possible obtain a marker specific for the pathology examined. Yes, but how? Every year there are dozens of methods developed all over the world to identify genomic markers of various pathological conditions, so as to lose the compass to the same researchers. Which of them will be the most reliable? Sbv Improver serves to dispel any doubt. Open to all and based on objective comparison of results processed and sent by the various competitors, strictly published anonymously, the race takes place on the web and to reduce the possibility of positive results due solely to luck, is divided into five categories for different diseases (lung cancer, psoriasis, multiple sclerosis, chronic obstructive pulmonary disease). Lauria has demonstrated the validity of its proposal in a direct comparison with over fifty international research groups. "It's exciting - notes - see the attention that has formed around the results of this scientific competition." "I am delighted," said the director of the CoSbi Corrado Priami, "our method proved to be the best in the world for the diagnosis of multiple sclerosis, and is globally

the second best in the application to a variety of diseases. This award recognizes the commitment of CoSBI and Italy. "

To the uninitiated may seem surprising, but Lauria is not a geneticist, but an electrical engineer. His field of research, bioinformatics, is probably one of the areas most multidisciplinary systems biology, where it is not uncommon to see working closely statisticians, computer scientists, engineers, and (even) a biologist. A, a domain in which Italy has peaks of excellence in an ecosystem, however, rather weak. There is CoSBI, there is Tigem in Naples, there are some advanced research centers in Sardinia and a few other regions. "The significant thing - said Lauria - is that the Italian laboratories are more efficient than private, probably the only ones who can count on a safe difinanziamenti and so plan how you should work. What is interesting because it shows how the Italian researchers, when put in a position of their colleagues in the more advanced countries, they have nothing to fear. One wonders what would be done if the degrees of context geenrale, iintendo solciale and political, is more sensitive to the world of science. "

The ceremony took place in the course of an international symposium held in Boston last week. The first place went to Adi Tarca and Roberto Romero at Wayne State University (USA), and the third with a team of Eth (University of Science and Technology) in Zurich.

The engineer who searches the DNA

Mario Lauria graduated in Electronic Engineering and a PhD in Electronic Engineering and Systems at the Federico II. After a period as a postdoc at the University of Illinois and the University of California, San Diego, from 2000 to 2007 he taught at Ohio State University in Columbus, Ohio, as assistant professor of Computer Science and Engineering. From 2007 he worked in the group of Systems Biology of the Telethon Institute of Genetics and Medicine (TIGEM) of Naples, and from 2011 he is a researcher at the Microsoft Research-University of Trento.

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