

PROJECT REVIEW

"Genomic, Proteomic and Informatics Analysis of Doping"

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WADA has established a vigorous research program aimed at developing tests for doping in sport. A number of laboratories have been funded around the world that are developing powerful new approaches to far more effective forms of testing for doping, and in most of these projects, work is proceeding along similar pathways but using somewhat different materials, animal models and testing and analytical methods. Although each separate laboratory is using its best available means to interpret its research results, the enormous amount of very complex information generated by these modern molecular techniques is not being optimally analyzed because of the many, sometimes subtle, differences in the ways the studies are designed and carried out. Our laboratory is convinced that the analysis, interpretation and collation of data of the mountains of complex information being generated by each of its separate funded laboratories, including our own, is currently being analyzed incompletely because of the enormous difficulty of modern molecular studies. We further conclude that the development of definitive and fully validated new doping testing methods would be markedly enhanced by having available a WADA-supported central core facility dedicated to the complex modern job of data analysis of disparate data from disparate laboratories; i.e., a dedicated WADA bioinformatics unit. WADA is establishing a pilot study at this laboratory to test the usefulness of a central data analysis facility for its currently funded research efforts, and we propose that the anticipated usefulness of such a facility should be extended without delay into an established and stable informatics core center for WADA to enable the more rapid development of effective tests for doping in sport.