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## **LAW MEETS BIOLOGY: ARE OUR DATABASES ELIGIBLE FOR LEGAL PROTECTION?**

*Michele Oliva and Marcelo Corrales\**

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\* Michele Oliva is at the Department of Plant Physiology, Ruhr University Bochum, Universitaetsstrasse 150, D-44801 Bochum, Germany. Marcelo Corrales is at the Institute for Legal Informatics, Koenigsworther Platz 1, D-30167 Hannover, Germany. Correspondence should be addressed to M.C. [corrales@iri.uni-hannover.de](mailto:corrales@iri.uni-hannover.de). Special thanks to Dr. Nils Hoppe who underwent the troublesome procedure of reading and correcting this paper.

Since the emergence of the Internet in the mid '90s, online databases have played a central role in scientific research. In particular, as a consequence of the sequencing of several genomes, the quantity of information and thus the number of biological databases has drastically risen. Nonetheless, the fast and uncontrolled availability of this impressive quantity of data has suddenly led to several legal issues regarding their means of protection.

The European Database Directive<sup>1</sup> provides a two-fold method of protection. The first scheme of protection is as an intellectual creation through copyright while the second scheme is the so called *sui generis* right. In accordance with the former, databases which, by reason of the selection or arrangement of their contents, constitute the author's own intellectual creation shall be protected as such by copyright. The latter focuses its attention on the protection of the investment spent on the creation of databases as a compilation of data.

According to the Directive, the only precondition for a database to be protected by the *sui generis* right is the substantial investment in obtaining, verifying or presenting the content of the database judged qualitatively and/or quantitatively.<sup>2</sup> The investment refers not only to money but also time, effort, technical equipment and/or human resources.<sup>3</sup> The main objective of the database right is to promote the database industry and only those databases which demonstrate a substantial investment are eligible for protection.<sup>4</sup> Even though the Directive does not specifically mention the protection of databases containing biological data, neither does it expressly exclude them,<sup>5</sup> given that the definition provided by the Directive is rather broad and allows room for interpretation. At first glance, it seems that all the conditions of the definition are fulfilled in the case of biological databases as their structure demands a great investment in terms of resources in obtaining, verifying and presenting the contents of the database. However, recent case law raised new issues that could make the scenario less clear.

In 2004, the ECJ decided four cases regarding databases containing sports information in the areas of football and horse-racing.<sup>6</sup> These decisions provided fundamental guidance aimed at clarifying vital aspects of the Directive, such as defining the words

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<sup>1</sup> Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the Legal Protection of Databases (hereafter, *Database Directive*).

<sup>2</sup> Art 7 of the *Database Directive*.

<sup>3</sup> *Ibid*, Recitals 7 and 40.

<sup>4</sup> J A Bovenberg, "Blood, Sweat and Grants – 'Honest Jim' and the European Database-Right" (2005) 1 *Genomics, Society & Policy* 1-28, at 17.

<sup>5</sup> J A Bovenberg, "Should Companies Set up Databases in Europe" (2000) 18 *Natural Biotechnology* 907.

<sup>6</sup> *Fixtures Marketing Ltd v Oy Veikkaus Ab* Case C-46/02 (Finland), *Fixtures Marketing Ltd v AB Svenska Spel* Case C-338/02 (Sweden), *Fixtures Marketing Ltd v OPAP* Case C-444/02 (Greece), *The British Horse-racing Board Ltd v William Hill Organization Ltd* Case C-203/02 (United Kingdom).

“obtaining” and “creating” data. The ECJ denied the protection of those databases whose creator had invested only in creating the contained data.<sup>7</sup> In our context, these decisions opened the door to the question whether biological databases may be judged to be “creating” or “obtaining” biological data.

In other words, the crucial element to this problem is how to define the term “obtaining” which clearly alludes to the act of collecting and gathering already existing data prior to the creation of the database in question.<sup>8</sup> Interestingly, in 2005 the *Landgericht* (district court) of Munich<sup>9</sup> issued a decision in relation to geographical maps which could shed some light on our discussion. In this case, the federal state of Bavaria was producing topographic maps of Bavaria in printed form. The defendant, on the other hand, copied information from the plaintiff’s maps and published it in tourist guides. As a consequence, the plaintiff argued the infringement of the database right. According to the *Landgericht*, the investment in obtaining the relevant data through aerial photography is not considered an investment in the creation of new data, since the data already existed and anybody with certain skills and knowledge, providing a similar investment, would have come to the same results. Therefore geographic maps are protected by a *sui generis* right. Since this case concerns data taken directly from nature, it could be argued, by analogy, that biological databases are privileged by database protection on the grounds that anybody with similar scientific skills is able to obtain the same biological data.<sup>10</sup>

The German interpretation is a good starting point to begin solving this dilemma. However, regarding biological databases, it seems more complicated to distinguish whether the data has been “obtained” or “created”. This problem should be analysed on a case by case basis, since the biological data can indeed derive from different sources. For example, data collected from other databases clearly falls under the definition of “obtained” whereas the situation is not that clear for the data directly coming from experimental work (e.g. sequencing projects). It is hoped that close cooperation between the scientific and legal communities will soon establish specific directives aimed at clarifying the numerous unresolved issues concerning the protection of biological databases.

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<sup>7</sup> M J Davison and P B Hugenholtz, “Football Fixtures, Horseraces and Spin-offs: The ECJ Domesticates the Database Right” (2005) 27 *European Intellectual Property Review* 113-118.

<sup>8</sup> P B Hugenholtz, “Abuse of Database Right: Sole-source Information Banks under the EU Database Directive” (2004) available at <http://www.ivir.nl/publications/hugenholtz/abuseofdatabaseright.html> (accessed 28 Aug 09).

<sup>9</sup> Landgericht München I, Urteil vom 9. 11. 2005 - 21 O 7402/02 (Topografische Kartenblätter), GRUR 2006, 225

<sup>10</sup> M Corrales and A Frakgouli, *Legal Issues in Biological Databases: A Sui Generis Approach*, Paper presented at the 2nd International Seminar of Information Law" ISIL, Corfu, Greece, 26 June 2009, pp. 6-10.