

“Are poultry and eggs a source of minute amounts of clomiphene in doping control samples”

Mario Thevis (German Sport University Cologne, Germany) **Philippe Delahaut, Eric Fichant, Nathalie Gillard** (CER Groupe Belgium)

Project Overview

The anti-estrogen clomiphene is prohibited at all times in sport and since 2011 a continuous trend in increasing numbers of adverse analytical findings is noted. Recent studies have outlined a particularly long detection window for clomiphene in human urine; further, few studies have demonstrated a significantly enhanced egg production if laying hens are treated with clomiphene. Hence, concerns have been raised whether trace amounts of clomiphene are present in eggs or poultry due to a potential use of clomiphene in the farming industry, and whether such trace amounts could lead to adverse analytical findings in doping controls. In order to protect the athletic community, a controlled administration study is planned, where clomiphene is administered to laying hens, and both the produced eggs as well as the edible tissue will be tested for residues of clomiphene. Further, eggs and edible tissue will be consumed by study volunteers, and urine samples will be subjected to routine doping control analytical assays to probe for the presence of the prohibited substance. The information gained from this study is vital to fair result management and decision-making processes in case of clomiphene findings in sports drug testing programs. If the results prove the possibility of clomiphene contaminations in dietary products such as eggs or poultry, athletes and anti-doping organizations must be warned and informed.