PROJECT REVIEW

"Sewer based tracing of doping use by amateur athletes”

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Sewage based tracing of doping use by amateur athletes. The present project investigates the applicability of sewage analysis to assess doping use in the general population and for amateur athletes in particular. To this end an analytical chemical tool will be developed that can identify and quantify existing as well as new doping substances present in sewage and pooled urine. The project will assess uncertainties associated with the various steps of sewage based epidemiology: sampling, sewage treatment plant and sewer system design, excretion rates, substance stability (in sewer), population size. The methodology used will employ high resolution mass spectrometry that will allow identification of hitherto unknown doping substances, quantification of known substances, and retrospective searches for newly identified doping agents in samples earlier collected. The methodology developed will be tested in sewage from three major cities in The Netherlands and during a major amateur sport event.