

## **Research and analysis: ACRE advice: application for a trial of GM Adenovirus 4 (16/R49/01)**

This document is the Advisory Committee on Releases to the Environment (ACRE's) advice to government in considering a [request from Imperial College London \(16/R49/01\)](#). The application is for a deliberate release of genetically modified virus (the vaccine) based on Adenovirus 4.

ACRE is satisfied that the trial will not have an adverse effect on human health or the environment.

---

## **Research and analysis: ACRE advice: application for a trial of GM Salmonella Typhi (16/R48/01)**

This document is the Advisory Committee on Releases to the Environment (ACRE's) advice to government in considering a request from Oxford Vaccine Group (16/R48/01). The application is for a deliberate release of genetically modified Salmonella Typhi for research and development purposes.

ACRE is satisfied that the trial will not have an adverse effect on human health or the environment.

---

## **Research and analysis: Making better use of local data in flood frequency estimation**

Flood frequency estimates are an essential part of flood risk management. They tell us what flood flows are expected to occur for a given rarity. They are central to many important decisions, such as the design and operation of flood defences, flood mapping, informing planning decisions in flood risk areas and long-term investment planning.

Methods described in the Flood Estimation Handbook (FEH) published in 1999, and its many subsequent updates, are considered the industry standard for flood estimation in the UK. They are used extensively by hydrologists from both the public and private sectors.

Flood frequency estimates (also known as design flood estimates) are associated with many sources of uncertainty. These hydrological uncertainties are often the most uncertain component in any flood risk assessment. As a result, any reduction in the uncertainty of flood frequency estimation has considerable benefit. One way to reduce uncertainty is to incorporate complementary local data to refine the results obtained using the FEH methods.

---

## **Research and analysis: Accounting for residual uncertainty: an update to the fluvial freeboard guide**

The Environment Agency has developed a new guide that will help flood risk managers identify and manage the uncertainty in their flood risk assessments and flood defence designs.

This new guide replaces the Environment Agency's Fluvial Freeboard Guidance Note (report W187) published in 2000. It is written for all flood risk management authorities, developers, and engineering consultants who work on their behalf.

---

## **Research and analysis: UK Offshore Energy Strategic Environmental Assessment: research projects**

The Department has maintained an active SEA research programme; identifying information gaps (some of which are outlined in previous SEA Recommendations) and commissioning new research where appropriate. This has been part of the Department's offshore SEA programme since 1999.

Completed studies relating to earlier SEAs are located on the [British Geological Survey \(BGS\) SEA archive](#).