



European Animal
Research Association

EARA News Digest 2020 - Week 4

Welcome to your Monday morning update, [from EARA](#), on the latest developments in biomedical science, policy and openness in animal research in Europe and around the world.

Research

Machine keeps liver alive outside the body for longer

Swiss researchers have [developed](#) a new machine that can maintain human livers for longer with the aim of allowing more patients to get transplants.

The machine was developed using pig livers and replicates the conditions in the body, including maintaining a similar pressure as within humans.

An article in *New Scientist* describes the research by EARA member the [University of Zurich](#), in collaboration with other Zurich institutions (University Hospital, ETH and Wyss).

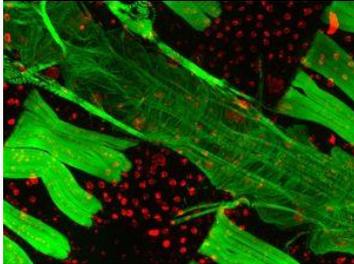
This [new machine](#) has been successful in keeping a human liver alive for seven days, with the added benefit of a noted decline in compounds linked to inflammation and injury.

Livers have a short lifespan outside the body,



with standard protocols keeping donor organs healthy for around 12 hours.

Research



Researchers rejuvenate heart function in flies

Researchers from [Iowa State University](#), USA, have rejuvenated heart function in ageing fruit flies by 'boosting' a genetic pathway also found in humans.

The genetic pathway, called mTOR, is linked to autophagy, a cellular process that removes and recycles damaged structures in the cell - autophagy slows with age, leading to the weakening of heart muscles.

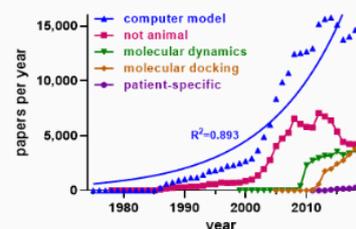
The research found that by genetically altering the flies to reduce the production of an inhibitor of this pathway, the heart function of middle-aged flies was restored to that of a young fly.

Flies and humans both age in a similar fashion, so the results could have implications for developing new treatments in humans.

Media

'Computer models are not replacing animal research', says academic

[An article](#) published on the [Speaking of Research](#) website challenges the view that



computer models are replacing animals in research.

Using an archive of biomedical and life sciences journal literature, [PubMed](#), [Dr Juan Carlos Marvizon](#), of UCLA, California, USA, mapped the number of papers published from 1975-2017 that included certain keywords to identify the use of computer models and animals.

He found that the number of papers published using animals has continued to increase linearly, whereas those using computer models have not increased much in the last 10 years, or at all since 2008, if only counting those which do not also use animals.

He claims that if computer models were replacing animals, the number of publications exclusively using computer models should increase and those using animals should decrease, however almost the reverse is shown.

Despite no evidence that computer models were replacing animals, the study did suggest that the types of animals used were changing, with larger animals such as primates, dogs, and cats being replaced by smaller animals, such as mice and zebrafish.

Policy



US survey: Greater transparency 'should be best practice'

A team at the [University of Wisconsin-Madison](#), USA, has conducted a [survey](#) of undergraduate students and faculty members to understand their attitudes towards research using animals.

Around 1,700 students and faculty members were asked their position on the statement “*I do not think that there is anything wrong with using animals in medical research*”, with half of all those surveyed agreeing (52%), 28% disagreeing, while 20% neither agreed or disagreed.

All faculties rated reporting the issue of transparency as ‘important’, but those in the department of biology rated it even higher. In general, students were also less confident in their knowledge about animal research than faculty members.

Overall the team concluded: ‘Outreach and support for public dialog about animal research should be considered best practice, and failure to meet these standards does a disservice to the university community.’

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