

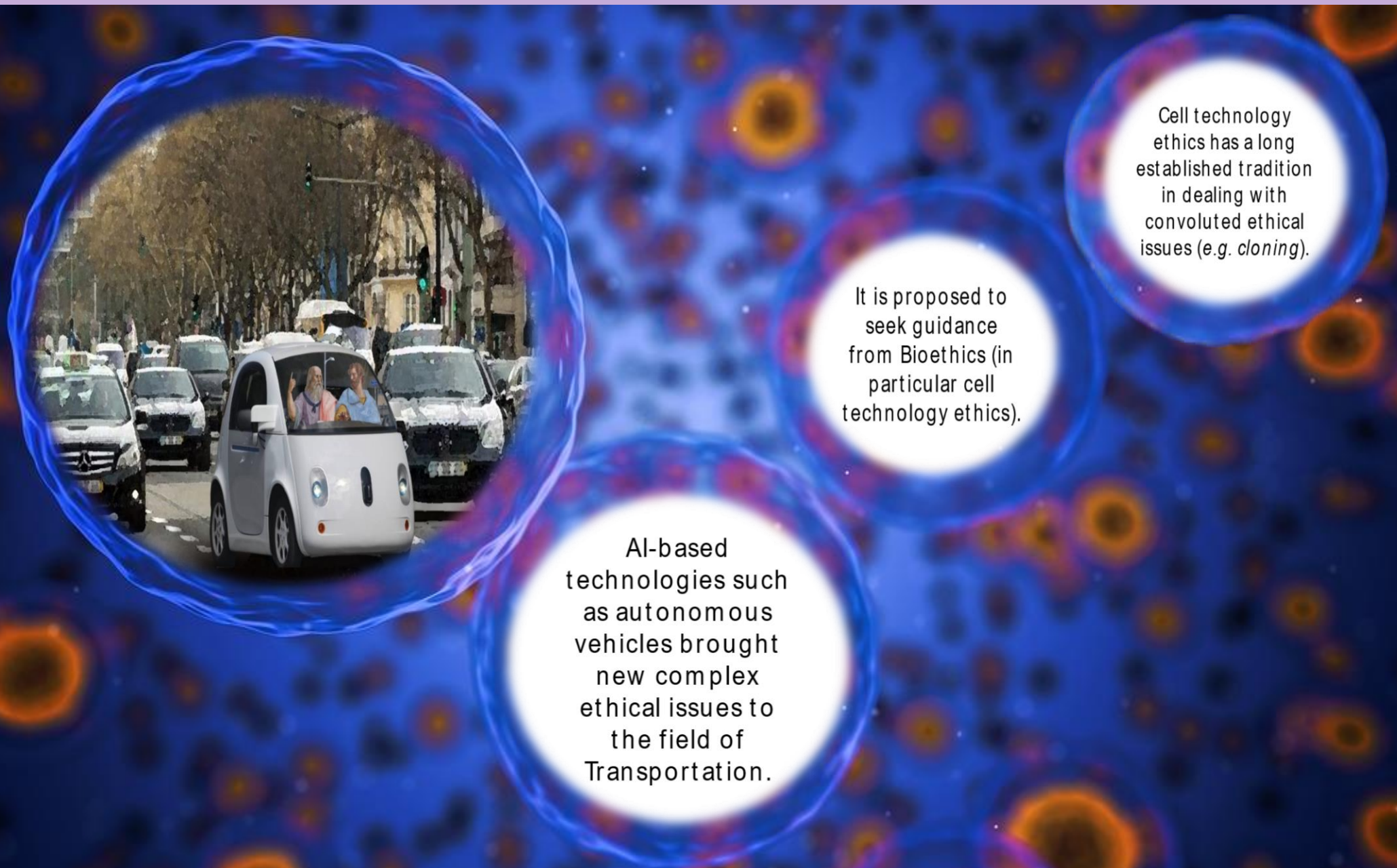
# Exploring Lessons from Cell Technology Ethics in AI-based Transportation

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## I. BACKGROUND OF RESEARCH

Artificial Intelligence (AI) brought a whole new set of ethical issues to the field of Transportation. Traditionally the ethics debates revolved around cost-benefit analysis, sustainability, or fairness in pricing but the advent of autonomous driving gave rise to complex ethical issues related to this AI-based technology. To address the novel complexity in the field of Transportation it is proposed to seek guidance from Bioethics, particularly cell technology ethics, which has a long-established tradition in dealing with convoluted ethical issues.



## II. THE ETHICS PROCESS

The Ethics process of a disruptive technology such as *IVF* or *AV* features (i) initial R&D; (ii) ethics debates; and (iii) policy & regulation. There is a high risk for speculation in the ethics debates. The focus on the *AV* moral dilemma (*trolley problem*) exacerbates the risk for speculative ethics in AI-based Transportation.

## III. EXTREME CASES OF PLAYING GOD

Extreme cases are common in cell technology (e.g. *cloning*). *AV* technology has brought an extreme case to the Transportation domain, but is the *AV* moral dilemma relevant? *AV* researchers (n=13) were interviewed in The Netherlands and provided contradictory statements: *somewhat realistic, unrealistic, unavoidable*.

## IV. MORATORIUMS

When there is uncertainty about the risks of a technology often scientists call for moratoriums (e.g. *CRISPR*). There is still great uncertainty about the risks & benefits of *AVs*. To avoid technology moratoriums ethics debates must focus on realistic and pressing issues.

### REFERENCES

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