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Title: Toward three-dimensional in vitro models to study neurovascular unit functions in health and disease
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COMMENTS TO AUTHORS

This is a very interesting review that spans across the most significant literature published in the last 10 years dealing with this problem and it gives a quite complete picture of the past and ongoing (and also future) situation.

However, in my opinion most of the quoted models are described too superficially, limiting its description to what kind of cells composed such a model, but without describing in detail the real limitations, or points of strength, of the various models, particularly from a functional point of view. This is particularly important in the paragraph describing the microfluidic platforms and in the subsequent paragraph describing models for neurodegenerative diseases. As an interested reader, I expect that the review gives me information I'm searching for.

On the contrary, studies from the authors (the last part of the review) are described well.

The manuscript entitled "Toward three-dimensional in vitro models to study neurovascular unit functions in health and disease" reviews several papers describing the evolution of 3D model systems to recapitulate neurovascular units and BBB.