



Efficiently stimulated adult microglia cross-prime naive CD8+T cells injected in the brain

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Titre	Efficiently stimulated adult microglia cross-prime naive CD8+T cells injected in the brain
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Auteur	Jarry, Ulrich [1], Jeannin, Pascale [2], Pineau, Laurent [3], Donnou, Sabrina [4], Delneste, Yves [5], Couez, Dominique [6]
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Mots-clés	Adult microglia [7], Ag cross-priming [8], CNS [9]
Résumé en anglais	<p>Microglia are the major myeloid-immune cells of the brain parenchyma. In a steady state, microglia monitor their environment for pathogens or damaged cells. In response to neural injury or inflammation, microglia become competent APCs able to prime CD4+ and CD8+ T lymphocytes. We previously demonstrated that neonatal and adult microglia cross-present exogenous soluble Ags in vitro. However, whether microglia are able to cross-present Ag to naive CD8+ T cells in vivo, within the brain microenvironment, remains undetermined. Here, we have designed an original protocol in order to exclude the involvement in cross-presentation activity of peripheral migrating APCs and of CNS-associated APCs. In C57Bl/6 mice, in which the body but not the head has been properly irradiated, we analyzed the ability of resident microglia to stimulate intracerebrally injected CD8+ T cells in vivo. This study demonstrates for the first time that adult microglia cross-present Ag to naive CD8+ T cells in vivo and that full microglia activation is required to overcome the inhibitory constraints of the brain and to render microglia able to cross-prime naive CD8+ T cells injected in the brain. These observations offer new insights in brain-tumor immunotherapy based on the induction of cytotoxic antitumoral T cells.</p>
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Liens

- [1] [http://okina.univ-angers.fr/publications?f\[author\]=16182](http://okina.univ-angers.fr/publications?f[author]=16182)
- [2] <http://okina.univ-angers.fr/pascale.jeannin/publications>
- [3] [http://okina.univ-angers.fr/publications?f\[author\]=8320](http://okina.univ-angers.fr/publications?f[author]=8320)
- [4] [http://okina.univ-angers.fr/publications?f\[author\]=16488](http://okina.univ-angers.fr/publications?f[author]=16488)
- [5] [http://okina.univ-angers.fr/publications?f\[author\]=3873](http://okina.univ-angers.fr/publications?f[author]=3873)
- [6] <http://okina.univ-angers.fr/dominique.couez/publications>
- [7] [http://okina.univ-angers.fr/publications?f\[keyword\]=14863](http://okina.univ-angers.fr/publications?f[keyword]=14863)
- [8] [http://okina.univ-angers.fr/publications?f\[keyword\]=14864](http://okina.univ-angers.fr/publications?f[keyword]=14864)
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