



Review on intermediate filaments of the nervous system and their pathological alterations

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Titre	Review on intermediate filaments of the nervous system and their pathological alterations
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Auteur	Lépinoux-Chambaud, Claire [1], Eyer, Joël [2]
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Résumé en anglais	Intermediate filaments (IFs) of the nervous system, including neurofilaments, α -internexin, glial fibrillary acidic protein, synemin, nestin, peripherin and vimentin, are finely expressed following elaborated cell, tissue and developmental specific patterns. A common characteristic of several neurodegenerative diseases is the abnormal accumulation of neuronal IFs in cell bodies or along the axon, often associated with impairment of the axonal transport and degeneration of neurons. In this review, we also present several perturbations of IF metabolism and organization associated with neurodegenerative disorders. Such modifications could represent strong markers of neuronal damages. Moreover, recent data suggest that IFs represent potential biomarkers to determine the disease progression or the differential stages of a neuronal disorder. Finally, recent investigations on IF expression and function in cancer provide evidence that they may be useful as markers, or targets of brain tumours, especially high-grade glioma. A better knowledge of the molecular mechanisms of IF alterations, combined to neuroimaging, is essential to improve diagnosis and therapeutic strategies of such neurodegenerative diseases and glioma.
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- [1] <http://okina.univ-angers.fr/c.lepinoux/publications>
- [2] <http://okina.univ-angers.fr/joel.eyer/publications>
- [3] [http://okina.univ-angers.fr/publications?f\[keyword\]=105](http://okina.univ-angers.fr/publications?f[keyword]=105)
- [4] [http://okina.univ-angers.fr/publications?f\[keyword\]=7146](http://okina.univ-angers.fr/publications?f[keyword]=7146)
- [5] [http://okina.univ-angers.fr/publications?f\[keyword\]=7130](http://okina.univ-angers.fr/publications?f[keyword]=7130)
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