

## List of publications, R Melki's team – 22-01-2024

## Liste des publications, équipe Melki – 22-01-2024

### 2023

[Synapses do not facilitate prion-like transfer of alpha-synuclein: a quantitative study in reconstructed unidirectional neural networks.](#)

Courte J, Le NA, Pan T, Bousset L, **Melki R**, Villard C, Peyrin JM. Cell Mol Life Sci. 2023 80(10):284. doi: 10.1007/s00018-023-04915-4. PMID: 37688644

[The stringent response is strongly activated in the antibiotic producing strain, Streptomyces coelicolor.](#)

Lejeune C, Cornu D, Sago L, **Redeker V**, Virolle MJ. Res Microbiol. 2023 104177. doi: 10.1016/j.resmic.2023.104177. PMID: 38159786

[Neither alpha-synuclein-preformed fibrils derived from patients with GBA1 mutations nor the host murine genotype significantly influence seeding efficacy in the mouse olfactory bulb.](#)

Walton S, **Fenyi A**, Tittle T, Sidransky E, Pal G, Choi S, **Melki R**, Killinger BA, Kordower JH. bioRxiv. 2023 2023.08.24.554646. doi: 10.1101/2023.08.24.554646. PMID: 37662402

[\$\alpha\$ -Synuclein liquid condensates fuel fibrillar  \$\alpha\$ -synuclein growth.](#)

Piroska L, **Fenyi A**, Thomas S, Plamont MA, **Redeker V**, **Melki R**, Gueroui Z. Sci Adv. 2023 9(33):eadg5663. doi: 10.1126/sciadv.adg5663. PMID: 37585526

[Air pollution nanoparticle and alpha-synuclein fibrils synergistically decrease glutamate receptor A1, depending upon nPM batch activity.](#)

Zhang H, D'Agostino C, Tulisiak C, Thorwald MA, Bergkvist L, Lindquist A, Meyerdirk L, Schulz E, Becker K, Steiner JA, Cacciottolo M, Kwatra M, **Rey NL**, Escobar Galvis ML, Ma J, Sioutas C, Morgan TE, Finch CE, Brundin P. Heliyon. 2023 9(4):e15622. doi: 10.1016/j.heliyon.2023.e15622. PMID: 37128335

[Differential intracellular trafficking of extracellular vesicles in microglia and astrocytes.](#)

Pantazopoulou M, Lamprokostopoulou A, Karampela DS, Alexaki A, Delis A, **Coens A**, Samiotaki M, Kriebardis AG, **Melki R**, Pagakis SN, Stefanis L, Vekrellis K. Cell Mol Life Sci. 2023 80(7):193. doi: 10.1007/s00018-023-04841-5. PMID: 37391572

[AAV-mediated expression of a new conformational anti-aggregated  \$\alpha\$ -synuclein antibody prolongs survival in a genetic model of  \$\alpha\$ -synucleinopathies.](#)

Düchs M, Blazevic D, Rechtsteiner P, Kenny C, Lamla T, Low S, **Savistchenko J**, Neumann M, **Melki R**, Schönberger T, Stierstorfer B, Wyatt D, Igney F, Ciossek T. NPJ Parkinsons Dis. 2023 9(1):91. doi: 10.1038/s41531-023-00542-9. PMID: 37322068

[Multi-site-specific isotopic labeling accelerates high-resolution structural investigations of pathogenic huntingtin exon-1.](#)

Elena-Real CA, Urbanek A, Lund XL, Morató A, Sagar A, Fournet A, Estaña A, **Bellande T**, Allemand F, Cortés J, Sibille N, **Melki R**, Bernadó P. Structure. 2023 31(6):644-650.e5. doi: 10.1016/j.str.2023.04.003. PMID: 37119819

[Functional and neuropathological changes induced by injection of distinct alpha-synuclein strains: A pilot study in non-human primates.](#)

Fayard A, **Fenyi A**, Lavisse S, Dovero S, Bousset L, **Bellande T**, Lecourtois S, Jouy C, Guillemier M, Jan C, Gipchtein P, Dehay B, Bezard E, **Melki R**, Hantraye P, Aron Badin R. Neurobiol Dis. 2023 180:106086. doi: 10.1016/j.nbd.2023.106086. PMID: 36933673

[Vacuole Membrane Protein 1 \(VMP1\) Restricts NLRP3 Inflammasome Activation by Modulating SERCA Activity and Autophagy.](#)

Zack SR, Nikolaienko R, Cook B, **Melki R**, Zima AV, Campbell EM. Res Sq. 2023 rs.3.rs-2508369. doi: 10.21203/rs.3.rs-2508369/v1. PMID: 36747822

[Detection of antibodies against the huntingtin protein in human plasma.](#)

Denis HL, Alpaugh M, Alvarez CP, **Fenyi A**, Barker RA, Chouinard S, Arrowsmith CH, **Melki R**, Labib R, Harding RJ, Cicchetti F. Cell Mol Life Sci. 2023 80(2):45. doi: 10.1007/s00018-023-04687-x. PMID: 36651994

[Propagation of Distinct  \$\alpha\$ -Synuclein Strains Within Human Reconstructed Neuronal Network and Associated Neuronal Dysfunctions.](#)

Gribaudo S, Bousset L, Courte J, **Melki R**, Peyrin JM, Perrier AL. Methods Mol Biol. 2023;2551:357-378. doi: 10.1007/978-1-0716-2597-2\_24. PMID: 36310215

[\$\alpha\$ -Synuclein Fibril, Ribbon and Fibril-91 Amyloid Polymorphs Generation for Structural Studies.](#)

**Bousset L**, **Alik A**, Arteni A, Böckmann A, Meier BH, **Melki R**. Methods Mol Biol. 2023;2551:345-355. doi: 10.1007/978-1-0716-2597-2\_23. PMID: 36310214

[Reactive astrocytes promote proteostasis in Huntington's disease through the JAK2-STAT3 pathway.](#)

Abjean L, Ben Haim L, Riquelme-Perez M, Gipchtein P, Derbois C, Palomares MA, Petit F, Hérard AS, Gaillard MC, Guillemier M, Gaudin-Guérif M, Aurégan G, Sagar N, Héry C, Dufour N, Robil N, Kabani M, **Melki R**, De la Grange P, Bemelmans AP, Bonvento G, Deleuze JF, Hantraye P, Flament J, Bonnet E, Brohard S, Olaso R, Brouillet E, Carrillo-de Sauvage MA, Escartin C. Brain. 2023 Jan 5 ;146(1):149-166. doi: 10.1093/brain/awac068. PMID: 35298632

[Host oligodendroglipathy and  \$\alpha\$ -synuclein strains dictate disease severity in multiple system atrophy.](#)

Torre-Muruzabal T, Van der Perren A, **Coens A**, Gelders G, Barber Janer A, Camacho-Garcia S, Klingstedt T, Nilsson P, Stefanova N, **Melki R**, Baekelandt V, Peelaerts W. Brain 2023 Jan 5;146(1):237-251. doi: 10.1093/brain/awac061. PMID: 35170728

## 2022

[Dissecting aggregation and seeding dynamics of  \$\alpha\$ -Syn polymorphs using the phasor approach to FLIM.](#)

Tittelmeier J, Druffel-Augustin S, **Alik A**, **Melki R**, Nussbaum-Krammer C. Commun Biol. 2022 Dec 8;5(1):1345. doi: 10.1038/s42003-022-04289-6. PMID: 36477485

[Human pericytes degrade diverse  \$\alpha\$ -synuclein aggregates.](#)

Dieriks BV, Hight B, **Alik A**, **Bellande T**, Stevenson TJ, Low V, Park TI, Correia J, Schweder P, Faull RLM, **Melki R**, Curtis MA, Dragunow M. PLoS One. 2022 Nov 18;17(11):e0277658. doi: 10.1371/journal.pone.0277658. PMID: 36399706

[Mesoscale connections and gene expression empower whole-brain modeling of  \$\alpha\$ -synuclein spread, aggregation, and decay dynamics.](#)

Dadgar-Kiani E, Bieri G, **Melki R**, Gitler AD, Lee JH. Cell Rep. 2022 Nov 8;41(6):111631. doi: 10.1016/j.celrep.2022.111631. PMID: 36351406

[Comparative Proteomic Analysis of Transcriptional and Regulatory Proteins Abundances in \*S. lividans\* and \*S. coelicolor\* Suggests a Link between Various Stresses and Antibiotic Production.](#)

C Lejeune, D Cornu, L Sago, **V Redeker**, M-J Virolle. Int J Mol Sci. 2022 Nov 26;23(23):14792. doi: 10.3390/ijms232314792. PMID: 36499130

[Modeling native and seeded Synuclein aggregation and related cellular dysfunctions in dopaminergic neurons derived by a new set of isogenic iPSC lines with SNCA multiplications.](#)

Iannielli A, Luoni M, Giannelli SG, Ferese R, Ordazzo G, Fossati M, Raimondi A, Opazo F, Corti O, Prehn JHM, Gambardella S, **Melki R**, Broccoli V. Cell Death Dis. 2022 Oct 19;13(10):881. doi: 10.1038/s41419-022-05330-6. PMID: 36261424

[Pericytes take up and degrade  \$\alpha\$ -synuclein but succumb to apoptosis under cellular stress.](#)

Stevenson TJ, Johnson RH, **Savistchenko J**, Rustenhoven J, Woolf Z, Smyth LCD, Murray HC, Faull RLM, Correia J, Schweder P, Heppner P, Turner C, **Melki R**, Dieriks BV, Curtis MA, Dragunow M. Sci Rep. 2022 Oct 15;12(1):17314. doi: 10.1038/s41598-022-20261-0. PMID: 36243723

[Disease Mechanisms of Multiple System Atrophy: What a Parallel Between the Form of Pasta and the Alpha-Synuclein Assemblies Involved in MSA and PD Tells Us.](#)

**Melki R**. Cerebellum. 2022 Jun 3. doi: 10.1007/s12311-022-01417-0. PMID: 35657577

[Modelling  \$\alpha\$ -Synuclein Aggregation and Neurodegeneration with Fibril Seeds in Primary Cultures of Mouse Dopaminergic Neurons.](#)

Tourville A, Akbar D, Corti O, Prehn JHM, **Melki R**, Hunot S, Michel PP. Cells. 2022 May 13;11(10):1640. doi: 10.3390/cells11101640. PMID: 35626675

[C9ORF72-derived poly-GA DPRs undergo endocytic uptake in iAstrocytes and spread to motor neurons.](#)

Marchi PM, Marrone L, **Brasseur L**, **Coens A**, Webster CP, **Bousset L**, Destro M, Smith EF, Walther CG, Alfred V, Marroccella R, Graves EJ, Robinson D, Shaw AC, Wan LM, Grierson AJ, Ebbens SJ, De Vos KJ, Hautbergue GM, Ferraiuolo L, **Melki R**, Azzouz M. Life Sci Alliance. 2022 May 13;5(9):e202101276. doi: 10.26508/lsa.202101276. PMID: 35568435

[Impact of  \$\alpha\$ -Synuclein Fibrillar Strains and  \$\beta\$ -Amyloid Assemblies on Mouse Cortical Neurons Endo-Lysosomal Logistics.](#)

Chou QL, **Alik A**, Marquier F, **Melki R**, Treussart F, Simonneau M. eNeuro. 2022 May 12;9(3):ENEURO.0227-21.2022. doi: 10.1523/ENEURO.0227-21.2022. PMID: 35470226

[Amyloid polymorphs and pathological diversities.](#)

**Melki R**. Neurochem Int. 2022 Apr 5;156:105335. doi: 10.1016/j.neuint.2022.105335. PMID: 35395342

[A Proteomic Analysis Indicates That Oxidative Stress Is the Common Feature Triggering Antibiotic Production in \*Streptomyces coelicolor\* and in the \*pptA\* Mutant of \*Streptomyces lividans\*.](#)

Lejeune C, Sago L, Cornu D, Redeker V, Virolle MJ. Front Microbiol. 2022 Mar 22;12:813993. doi: 10.3389/fmicb.2021.813993. eCollection 2021. PMID: 35392450

[Sequential or Simultaneous Injection of Preformed Fibrils and AAV Overexpression of Alpha-Synuclein Are Equipotent in Producing Relevant Pathology and Behavioral Deficits.](#)

Negrini M, Tomasello G, Davidsson M, **Fenyi A**, Adant C, Hauser S, Espa E, Gubinelli F, Manfredsson FP, **Melki R**, Heuer A. J Parkinsons Dis. 2022 Feb 23. doi: 10.3233/JPD-212555. PMID: 35213388

[Endogenous Levels of Alpha-Synuclein Modulate Seeding and Aggregation in Cultured Cells.](#)

Vasili E, Dominguez-Meijide A, Flores-León M, Al-Azzani M, Kanellidi A, **Melki R**, Stefanis L, Outeiro TF. Mol Neurobiol. 2022 Feb;59(2):1273-1284. doi: 10.1007/s12035-021-02713-2. Epub 2022 Jan 4. PMID: 34984585

## 2021

[Establishment of a human induced pluripotent stem cell neuronal model for identification of modulators of A53T  \$\alpha\$ -synuclein levels and aggregation.](#)

Vajhøj C, Schmid B, **Alik A, Melki R**, Fog K, Holst B, Stummann TC. PLoS One. 2021 Dec 21;16(12):e0261536. doi: 10.1371/journal.pone.0261536. eCollection 2021. PMID: 34932569

[Structural mapping techniques distinguish the surfaces of fibrillar 1N3R and 1N4R human tau.](#)

**Caroux E, Redeker V, Madiona K, Melki R.** J Biol Chem. 2021 Nov;297(5):101252. doi: 10.1016/j.jbc.2021.101252. Epub 2021 Sep 28. PMID: 34592311

[T Cells Limit Accumulation of Aggregate Pathology Following Intrastratial Injection of  \$\alpha\$ -Synuclein Fibrils.](#)

George S, Tyson T, **Rey NL**, Sheridan R, Peelaerts W, Becker K, Schulz E, Meyerdirk L, Burmeister AR, von Linstow CU, Steiner JA, Galvis MLE, Ma J, Pospisilik JA, Labrie V, Brundin L, Brundin P. J Parkinsons Dis. 2021;11(2):585-603. doi: 10.3233/JPD-202351. PMID: 33579871

[LGALS3 \(galectin 3\) mediates an unconventional secretion of SNCA/ \$\alpha\$ -synuclein in response to lysosomal membrane damage by the autophagic-lysosomal pathway in human midbrain dopamine neurons.](#)

Burbidge K, Rademacher DJ, Mattick J, Zack S, Grillini A, **Bousset L**, Kwon O, Kubicki K, Simon A, **Melki R**, Campbell EM. Autophagy. 2021 Oct 6:1-29. doi: 10.1080/15548627.2021.1967615. PMID: 34612142

[Microglia jointly degrade fibrillar alpha-synuclein cargo by distribution through tunneling nanotubes.](#)

Scheiblich H, Dansokho C, Mercan D, Schmidt SV, **Bousset L**, Wischhof L, Eikens F, Odainic A, Spitzer J, Griep A, Schwartz S, Bano D, Latz E, **Melki R**, Heneka MT. Cell. 2021 Sep 30;184(20):5089-5106.e21. doi: 10.1016/j.cell.2021.09.007. Epub 2021 Sep 22. PMID: 34555357

[Microglial NLRP3 Inflammasome Activation upon TLR2 and TLR5 Ligation by Distinct  \$\alpha\$ -Synuclein Assemblies.](#)

Scheiblich H, **Bousset L**, Schwartz S, Griep A, Latz E, **Melki R**, Heneka MT. J Immunol. 2021 Oct 15;207(8):2143-2154. doi: 10.4049/jimmunol.2100035. Epub 2021 Sep 10. PMID: 34507948

[Microglial inclusions and neurofilament light chain release follow neuronal  \$\alpha\$ -synuclein lesions in long-term brain slice cultures.](#)

Barth M, Bacioglu M, Schwarz N, Novotny R, Brandes J, Welzer M, Mazzitelli S, Häsler LM, Schweighauser M, Wuttke TV, Kronenberg-Versteeg D, Fog K, Ambjørn M, **Alik A, Melki R**, Kahle PJ, Shimshek DR, Koch H, Jucker M, Tanriöver G. Mol Neurodegener. 2021 Aug 11;16(1):54. doi: 10.1186/s13024-021-00471-2. PMID: 34380535

[Alpha-synuclein research: defining strategic moves in the battle against Parkinson's disease.](#)

Oliveira LMA, Gasser T, Edwards R, Zweckstetter M, **Melki R**, Stefanis L, Lashuel HA, Sulzer D, Vekrellis K, Halliday GM, Tomlinson JJ, Schlossmacher M, Jensen PH, Schulze-Hentrich J, Riess O, Hirst WD, El-Agnaf O, Mollenhauer B, Lansbury P, Outeiro TF. NPJ Parkinsons Dis. 2021 Jul 26;7(1):65. doi: 10.1038/s41531-021-00203-9. PMID: 34312398. Review.

[LAG3 is not expressed in human and murine neurons and does not modulate  \$\alpha\$ -synucleinopathies.](#)

Emmenegger M, De Cecco E, Hruska-Plochan M, Eninger T, Schneider MM, Barth M, Tantardini E, de Rossi P, Bacioglu M, Langston RG, Kaganovich A, Bengoa-Vergniory N, Gonzalez-Guerra A, Avar M, Heinzer D, Reimann R, Häsler LM, Herling TW, Matharu NS, Landeck N, Luk K, **Melki R**, Kahle PJ, Hornemann S, Knowles TPJ, Cookson MR, Polymenidou M, Jucker M, Aguzzi A. EMBO Mol Med. 2021 Sep 7;13(9):e14745. doi: 10.15252/emmm.202114745. Epub 2021 Jul 26. PMID: 34309222

[Phenotypic manifestation of  \$\alpha\$ -synuclein strains derived from Parkinson's disease and multiple system atrophy in human dopaminergic neurons.](#)

Tanudjojo B, Shaikh SS, **Fenyi A**, **Bousset L**, Agarwal D, Marsh J, Zois C, Heman-Ackah S, Fischer R, Sims D, **Melki R**, Tofaris GK. Nat Commun. 2021 Jun 21;12(1):3817. doi: 10.1038/s41467-021-23682-z. PMID: 34155194

[The differential solvent exposure of N-terminal residues provides "fingerprints" of alpha-synuclein fibrillar polymorphs.](#)

**Landureau M**, **Redeker V**, **Bellande T**, Eyquem S, **Melki R**. J Biol Chem. 2021 Jan-Jun;296:100737. doi: 10.1016/j.jbc.2021.100737. Epub 2021 Apr 30. PMID: 33933456

[TNF- \$\alpha\$  and  \$\alpha\$ -synuclein fibrils differently regulate human astrocyte immune reactivity and impair mitochondrial respiration.](#)

Russ K, Teku G, **Bousset L**, **Redeker V**, Piel S, Savchenko E, Pomeschik Y, **Savistchenko J**, Stummann TC, Azevedo C, Collin A, Goldwurm S, Fog K, Elmer E, Vihinen M, **Melki R**, Roybon L. Cell Rep. 2021 Mar 23;34(12):108895. doi: 10.1016/j.celrep.2021.108895. PMID: 33761362

[Suppression of  \$\alpha\$ -synuclein propagation after intrastriatal injection in FABP3 null mice.](#)

Matsuo K, Kawahata I, **Melki R**, **Bousset L**, Owada Y, Fukunaga K. Brain Res. 2021 Jun 1;1760:147383. doi: 10.1016/j.brainres.2021.147383. Epub 2021 Feb 24. PMID: 33636166

[Absence of Uptake and Prion-Like Spreading of Alpha-Synuclein and Tau After Intravitreal Injection of Preformed Fibrils.](#)

Veys L, Van Houcke J, Aerts J, Van Pottelberge S, Mahieu M, **Coens A**, **Melki R**, Moechars D, De Muyneck L, De Groef L. Front Aging Neurosci. 2021 Jan 15;12:614587. doi: 10.3389/fnagi.2020.614587, PMID: 33519421

[Seeding Propensity and Characteristics of Pathogenic  \$\alpha\$ Syn Assemblies in Formalin-Fixed Human Tissue from the Enteric Nervous System, Olfactory Bulb, and Brainstem in Cases Staged for Parkinson's Disease.](#)

**Fenyi A**, Duyckaerts C, **Bousset L**, Braak H, Tredici KD, **Melki R**, On Behalf Of The Brainbank Neuro-Ceb Neuropathology Network. Cells. 2021 Jan 12;10(1):E139. doi: 10.3390/cells10010139. PMID: 33445653

[Intranasal administration of  \$\alpha\$ -synuclein preformed fibrils triggers microglial iron deposition in the substantia nigra of Macaca fascicularis.](#)

Guo JJ, Yue F, Song DY, **Bousset L**, Liang X, Tang J, Yuan L, Li W, **Melki R**, Tang Y, Chan P, Guo C, Li JY. Cell Death Dis. 2021 Jan 13;12(1):81. doi: 10.1038/s41419-020-03369-x. PMID: 33441545

[Dopamine D2 Long Receptors Are Critical for Caveolae-Mediated  \$\alpha\$ -Synuclein Uptake in Cultured Dopaminergic Neurons.](#)

Kawahata I, Sekimori T, Wang H, Wang Y, Sasaoka T, **Bousset L**, **Melki R**, Mizobata T, Kawata Y, Fukunaga K. Biomedicines. 2021 Jan 8;9(1):E49. doi: 10.3390/biomedicines9010049. PMID: 33429895

[Crucial Role of FABP3 in  \$\alpha\$ Syn-Induced Reduction of Septal GABAergic Neurons and Cognitive Decline in Mice.](#)

Matsuo K, Yabuki Y, **Melki R**, **Bousset L**, Owada Y, Fukunaga K. Int J Mol Sci. 2021;22(1):400. doi: 10.3390/ijms22010400. PMID: 33401521

## 2020

[Novel antibodies detect additional  \$\alpha\$ -synuclein pathology in synucleinopathies: potential development for immunotherapy.](#)

Nimmo JT, Verma A, Dodart JC, Wang CY, **Savistchenko J**, **Melki R**, Carare RO, Nicoll JAR. Alzheimers Res Ther. 2020 Nov 30;12(1):159. doi: 10.1186/s13195-020-00727-x. PMID: 33256825

[Atomic Force Microscopy Imaging and Nanomechanical Properties of Six Tau Isoform Assemblies.](#) Makky A, **Bousset L, Madiona K, Melki R.** Biophys J. 2020 Nov 18;S0006-3495(20)30893-6. doi: 10.1016/j.bpj.2020.10.045. PMID: 33217380

[Distinct alpha-Synuclein species induced by seeding are selectively cleared by the Lysosome or the Proteasome in neuronally differentiated SH-SY5Y cells.](#) Pantazopoulou M, Brembati V, Kanellidi A, **Bousset L, Melki R,** Stefanis L.J Neurochem. 2020 Aug 31. doi: 10.1111/jnc.15174. PMID: 32869336

[Prion Amyloid Polymorphs - The Tag Might Change It All.](#) **Bousset L,** Luckgei N, **Kabani M,** Gardienet C, Schütz AK, **Melki R,** Meier BH, Böckmann A. Front Mol Biosci. 2020 Aug 6;7:190. doi: 10.3389/fmolb.2020.00190. PMID: 32850974

[Probing amyloid fibril secondary structures by infrared nanospectroscopy: experimental and theoretical considerations.](#) Waeytens J, Mathurin J, Deniset-Besseau A, Arluison V, **Bousset L,** Rezaei H, Raussens V, Dazzi A. Analyst. 2020 Oct 27. doi: 10.1039/d0an01545h. PMID: 33107501

[Polypeptides derived from  \$\alpha\$ -Synuclein binding partners to prevent  \$\alpha\$ -Synuclein fibrils interaction with and take-up by cells.](#) **Monsellier E, Bendifallah M, Redeker V, Melki R.** PLoS One. 2020 Aug 13;15(8):e0237328. doi: 10.1371/journal.pone.0237328. PMID: 32790707

[The Yarrowia lipolytica orthologs of Sup35p assemble into thioflavin T-negative amyloid fibrils.](#) **Kabani M, Melki R.** Biochem Biophys Res Commun. 2020 Aug 27;529(3):533-539. doi: 10.1016/j.bbrc.2020.06.024. PMID: 32736670

[Glucose availability dictates the export of the soluble and prion forms of Sup35p via periplasmic or extracellular vesicles.](#) **Kabani M, Pilard M, Melki R.** Mol Microbiol. 2020 Aug;114(2):322-332. doi: 10.1111/mmi.14515. PMID: 32339313

[The Amphipathic GM1 Molecule Stabilizes Amyloid Aggregates, Preventing their Cytotoxicity.](#) Bucciantini M, Leri M, Stefani M, **Melki R,** Zecchi-Orlandini S, Nosi D. Biophys J. 2020 Jul 21;119(2):326-336. doi: 10.1016/j.bpj.2020.06.005. PMID: 32579964

[Disassembly of Tau fibrils by the human Hsp70 disaggregation machinery generates small seeding-competent species.](#) Nachman E, Wentink AS, **Madiona K, Bousset L,** Katsinelos T, Allinson K, Kampinga H, McEwan WA, Jahn TR, **Melki R,** Mogk A, Bukau B, Nussbaum-Krammer C. J Biol Chem. 2020 Jul 10;295(28):9676-9690. doi: 10.1074/jbc.RA120.013478. PMID: 32467226

[Interaction of the chaperones alpha B-crystallin and CHIP with fibrillar alpha-synuclein: Effects on internalization by cells and identification of interacting interfaces.](#) **Bendifallah M, Redeker V, Monsellier E, Bousset L, Bellande T, Melki R.** Biochem Biophys Res Commun. 2020 Jun 30;527(3):760-769. doi: 10.1016/j.bbrc.2020.04.091. PMID: 32430178

[Hiding in plain sight: vesicle-mediated export and transmission of prion-like proteins.](#) **Kabani M.** Microb Cell. 2020 Jun 2;7(7):199-201. doi: 10.15698/mic2020.07.724. PMID: 32656259

[The structural differences between patient-derived  \$\alpha\$ -synuclein strains dictate characteristics of Parkinson's disease, multiple system atrophy and dementia with Lewy bodies.](#) Van der Perren A, Gelders G, **Fenyi A, Bousset L,** Brito F, Peelaerts W, Van den Haute C, Gentleman S, **Melki R,** Baekelandt V. Acta Neuropathol. 2020 Jun;139(6):977-1000. doi: 10.1007/s00401-020-02157-3. PMID: 32356200

[Cell biology and dynamics of Neuronal Na<sup>+</sup>/K<sup>+</sup>-ATPase in health and diseases.](#) **Shrivastava AN,** Triller A, **Melki R.** Neuropharmacology. 2020 Jun 1;169:107461. doi: 10.1016/j.neuropharm.2018.12.008. PMID: 30550795

[Dipeptide repeat derived from C9orf72 hexanucleotide expansions forms amyloids or natively unfolded structures in vitro.](#) Brasseur L, Coens A, Waeytens J, Melki R, Bousset L. Biochem Biophys Res Commun. 2020 May 28;526(2):410-416. doi: 10.1016/j.bbrc.2020.03.108. PMID: 32223927

[The expression level of alpha-synuclein in different neuronal populations is the primary determinant of its prion-like seeding.](#) Courte J, Bousset L, Boxberg YV, Villard C, Melki R, Peyrin JM. Sci Rep. 2020 Mar 17;10(1):4895. doi: 10.1038/s41598-020-61757-x. PMID: 32184415

[Differential Membrane Binding and Seeding of Distinct  \$\alpha\$ -Synuclein Fibrillar Polymorphs.](#) Shrivastava AN, Bousset L, Renner M, Redeker V, Savistchenko J, Triller A, Melki R. Biophys J. 2020 Mar 24;118(6):1301-1320. doi: 10.1016/j.bpj.2020.01.022. PMID: 32059758

[Protein Quality Control Pathways at the Crossroad of Synucleinopathies.](#) De Mattos EP, Wentink A, Nussbaum-Krammer C, Hansen C, Bergink S, Melki R, Kampinga HH. J Parkinsons Dis. 2020;10(2):369-382. doi: 10.3233/JPD-191790. PMID: 31985474

## 2019

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