

CURRICULUM VITAE & LIST OF PUBLICATIONS

Name : EL-AMRAOUI Aziz

Position title: Directeur de Recherche/Associate Professor, Institut Pasteur

Citizenship: French

Office address: Institut Pasteur, INSERM UMRS1120,
Unité « Déficients Sensoriels Progressifs »/ Progressive Sensory Disorders
Département de Neurosciences
25, rue Dr. Roux 75724 Paris cedex15, France

Phone: 33 1 45 68 88 92

E-mail: aziz.el-amraoui@pasteur.fr

Websites: <https://research.pasteur.fr/en/team/progressive-sensory-disorders-pathophysiology-and-therapy/>
https://www.researchgate.net/profile/Aziz_El-Amraoui

EDUCATION

1987-1990: Master degree, Animal Biology, Option: Immunology, Univ. Cadi Ayad, (Marrakech, Morocco)

1991-1995: M2 and PhD in Neuroscience, University of Claude Bernard, Lyon-I (Lyon, France)

2004: HDR, Neuroscience, Sorbonne Universités, UPMC Univ Paris06 (Paris, France)

ACADEMIC POSITIONS HELD

2019: Associate Professor, head of Unit « Progressive Sensory Disorders », Institut Pasteur

2015: Associate Professor, Group leader, « Sensory Cilia and Diseases », Institut Pasteur

2008: Associate Professor (Directeur de Recherche), Institut Pasteur

2002-2007: Assistant Professor (Chargé de Recherche), Institut Pasteur

1997-2001: Research Assistant, Institut Pasteur

FELLOWSHIPS, AWARDS AND HONORS

- Postgraduate Scholarship by the Moroccan Ministry of Education and Research (Major of Univ Cadi Ayad promotion 1991) paid as a stipend over 4 years (1990-1994)
- Fellowship by FAUN Stiftung (Suchert Foundation) (1995-1997)
- Jean Valade prize (Fondation de France), Physiopathology and molecular mechanisms defective in the Usher syndrome (deafness-blindness in humans) (2005)
- Fond MAZET-DANET (Fondation de France): Physiopathology of Hereditary Deafness (2006)
- Elected at the « COMESP », the Institut Pasteur committee for evaluation and recruitment of scientific personnel (2007-2011)
- Nominated at the executive committee of the foundation "Voir et Entendre" (since 2012)
- Elected at the Institut Pasteur General Assembly « Assemblée des 100 » (2014-2020)
- Elected at the Institut Pasteur Scientific Council (four sessions/year: appraisal and reporting on about 10-12 application for research groups) (since 2015)
- Nominated at the Scientific Council of the association APE.MEG, Universities Paris Diderot and Paris Descartes (since 2016)
- Elected member of CORLAS (Collegium Oto-Rhino-Laryngologicum Amicitiae Sacrum) (since 2018)
- Chair of Excellence "Charles Nicolle, Institut Pasteur" (*deaf-blindness in the Usher syndrome, from disease mechanisms to therapy*) (2017-2019)
- Nominated member of international Association for Research in Otorhinolaryngology (ARO) Travel Award committee (2020)

TEACHING & SCIENTIFIC ACTIVITIES, AND RESEARCH DISSEMINATION

- > 75 publications (articles & reviews <https://orcid.org/0000-0003-2692-4984>; Google Scholar **H-index: 40**, sum of cites: ~7212); Profile on research gate: https://www.researchgate.net/profile/Aziz_El-Amraoui. > 90 invited lectures and contributed talks: e.g. 39 oral presentations in the last 5 years: national (x 22) & international (x 17).
- *Main Funding (current as PI): 2015-2020:* The French National Research Agency (ANR) as part of the second

“Investissements d’Avenir” programme (light4deaf, ANR-15-RHUS-0001); **2017-2022**: ANR-HearInNoise-(ANR-17-CE16-0017; progressive hearing); **2019-2020**: LHW-Stiftung (Usher syndrome vision loss); **2019-2020**: Retina-France (Usher syndrome disease modeling); **2019-2020**: **Fondation maladie rare (FMR)** Usher modelling in pig. **2019-2024**: Fondation pour l’Audition (Unit package); **2021**: Fondation de France; **2019-2022**: Labex LifeSenses (ANR).

➤ **REGULAR TEACHING**: national (~ 12 hours per year) of courses about hearing and vision perception, and related disorders in Master and PhD University programs: @ University Paris V, Paris VI/UPMC, Paris VII, and Veterinary school, Maison Alfort, DIU patho audio-vestibulaires (Paris/Lyon/Clermont); and international (~ 2-3 hours per year; in 2012, 2014-2016): Pasteur International Network (Tunisia, Morocco) & Belgium (CHU st Charles, Brussels), Woods Hole MBL (lecture + Training/3-4 days, August 2019).

Director & organizer international OMI (Open medicine initiative) Pasteur course on neurological and sensory disorders: genes, pathogenesis, and innovative therapies, March 7-13 2021 (postponed to 2022).

➤ Ad hoc reviewing for JCI, PNAS, JCB, Nat Comm, EMBO Mol. Med., Mol. Therap. Gene Therap. JCS, JN, MCN, MoBC, HMG, FASEB J, JMCB, BBADIS, Plos one, J. Neurophysiol, Biochem J, Sem Cell Dev Biol, JARO, Hear. Res. Sci. Rep. Mol Vis. etc...

➤ Evaluations of Grants: national (ANR-Blanc SVSE, Paris V, Institut Pasteur-ValoExpress, PTR (transversal res. Programs)), Clinique de la souris, Fondation de France, Fondation Maladies Rares, Retina-France, ...), and international (European EJP RD, fellowships MSCA-H2020, Action on Hearing UK, Wellcome trust, Moorfield Eye Charity UK, NSF, FNRS Belgium, US-Israel Sci Foundation, Novo Nordisk Foundation Denmark, Fondazione Cariverona Italy).

➤ 18 PhD Juries (as Director (x3), reporting referee (x9 (France), 2 (Netherlands, Belgium), examiner (x3), or president (x2); 2 HDR Juries; tutor of 13 PhD Students (Institut Pasteur), and member of 15 PhD committees (UPMC, Université d’Auvergne, Univ. Tours),


➤ Dissemination of knowledge towards public, professional and medical actors, e.g. patients’ organizations (Retina-France, ACFOS, ... etc), ENTs (France, Belgium, Algeria), audioprothesists (France). Co-organizer of meeting: «les chercheurs accueillent les malades» @ the Institut Pasteur (May 2017 with A. James, INSERM); a report for ENTs (2018), and a book chapter in https://www.odilejacob.fr/catalogue/medecine/neurologie/cerveau-en-lumieres_9782738148445.php.

➤ My work has led to several press releases, and interviews with journalists (examples below): Tf1 TV News, 20h00, November 23, 2012 (origine de la cécité Usher révélée); France 5 TV, “Santé Magasine”, 14h00, June 18, 2014 (e.g.: <http://www.allodocteurs.fr/actualite-sante-sourd-aux-voix-dans-le-brouhaha-les-chercheurs-savent-pourquoi-13723.asp?1=1>; & others (e.g. 2018: <https://www.pasteur.fr/en/research-journal/news/usher-syndrome-type-iii-cochlear-gene-therapy-preserves-hair-cell-synaptic-transmission-auditory>).

EL AMRAOUI Aziz

5 major publication last 5 years*

➤ **75** publications (articles & reviews <https://orcid.org/0000-0003-2692-4984>; GS **H-index: 40**, sum of cites: ~7170, Profile on research gate: https://www.researchgate.net/profile/Aziz_El-Amraoui

1. Dunbar L, Patni P, Aguilar C, Mburu P, Corns L, Wells H, Delmaghani S, Parker A, Johnson S, Williams D, Esapa C, Simon M, Chessum L, Newton S, Dorning J, Jeyarajan P, Susan Morse S, Lelli A, Codner G, Peineau T, Gopal S, Alagramam K, Hertzano R, Dulon D, Wells S, Williams F, Petit C, Dawson S, Brown S, Marcotti W, **EL-AMRAOUI A***, Bowl M* **(2019)** Clarin-2 is essential for hearing by maintaining stereocilia integrity and function. *EMBO Mol. Med.* 11(9):e10288. doi: 10.15252/emmm.201910288. # **cover article**, *Co-senior/corresponding authorships.
2. Dulon D*, Papal S, Patni P, Cortese M, Vincent P, Tertrais M, Emptoz A, Tlili^A, Bouleau Y, Michel V, Delmaghani D, Aghaie A, Pepermans E, Allegría-Prevot O, Akil O, Lustig L, Avan P, Safieddine S, Petit C*, **EL-AMRAOUI A ***. **(2018)** Clarin-1 defect results in a rescuable auditory hair cell synaptopathy. *J. Clin. Invest.* 128(8):3382-3401. doi:10.1172/JCI94351.
3. Michel V, Booth K, Patni P, Cortese M, Azaïez H, Bahloul A, Kahrizi K, Labbé M, Emptoz A, Lelli A, Dégardin J, Dupont T, Aghaie A, Oficyalska D, Picaud S, Najmabadi H, Smith RJ, Bowl MR, Brown SDM, Avan P, Petit C, **EL-AMRAOUI A*** **(2017)** CIB2, defective is isolated deafness, is key to auditory hair cells mechanotransduction and survival. *EMBO Mol. Med.* 9:1711-1731.
4. Schietroma S, Parain K, Estivalet A, Aghaie A, Boutet de Monvel J, Picaud S, Sahel JA, Perron M, **EL-AMRAOUI A*** & Petit C*. **(2017)** Shaping of the photoreceptor outer segment by the calyceal processes of the inner segment. *J. Cell Biol.* 216, 1849-1864. *Co-senior and corresponding authorships.  F1000 Med “Recommended” selection

5. Cortese M, Papal S, Pisciotano F, Elgoyhen AB, Hardelin J.-P, Petit C, [Franchini LF*](#), & [El-Amraoui A*](#). (2017) Spectrin β V adaptive mutations and changes in subcellular location correlate with emergence of hair cell electromotility in mammals. *Proc. Natl Acad. Sci. USA*. 114(8):2054-2059. *Co-senior authorships.

LIST OF PUBLICATIONS

Aziz EL-AMRAOUI

Orcid: <https://orcid.org/0000-0003-2692-4984>; * 1st, last/co-last author Publications highlighted in grey, review in blue.

- Vona B, Mazaheri N, Lin S-J, Dunbar L.A., Maroofian R, Azaiez H, Booth K.T. Vitry S, Rad A, Varshney P, Fowler B, Alagramam K.N., Murphy D, Shariati G, Sedaghat A, Houlden H, Kumar S.V., Smith R.J.H., Haaf T, El-Amraoui A, Bowl M.R. Varshney G.K., Galehdari H. (2021) Biallelic mutation of *CLRN2* causes non-syndromic hearing loss in humans. *BioRxiv* DOI:10.1101/2020.07.29.222828; *J Hum Genet*. In press
- Nourbakhsh A, Colbert BM, Nisenbaum E, [El-Amraoui A](#), Dykxhoorn DM, Koehler KR, Chen Z-Y, Liu XZ (2021). *Stem Cells and Gene Therapy in Progressive Hearing Loss: the State of the Art. J Oto-Rhino-Laryngology*, in press.
- Charfeddine C, Dallali H, Abdessalem G, Ghedira K, Hamdi Y, Elouej S, Landoulsi Z, Delague V, Lagarde A, Levy N, [El-Amraoui A](#), Boubaker MS, Abdelhak S, Mokni M. (2020) Identification of a *CDH12* potential candidate genetic variant for an autosomal dominant form of transgrediens and progrediens palmoplantar keratoderma in a Tunisian family. *J Hum Genet*. 65(4):397-410. doi: 10.1038/s10038-019-0711-4
- [Delmaghani S*](#) and [El-Amraoui, A*](#) (2020) The inner ear gene therapies take off: current promises and future challenges. *J. Clin. Medicine*, 9, 2309; <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7408650/>
- [Geleoc G*](#) & [El-Amraoui A*](#) (2020) Disease mechanisms & gene therapy for Usher syndrome. *Hear. Res.* Mar 4:107932. <https://www.sciencedirect.com/science/article/pii/S0378595519304733>
- Dunbar L, Patni P, Aguilar C, Mburu P, Corns L, Wells H, Delmaghani S, Parker A, Johnson S, Williams D, Esapa C, Simon M, Chessum L, Newton S, Dorning J, Jeyarajan P, Susan Morse S, Lelli A, Codner G, Peineau T, Gopal S, Alagramam K, Hertzano R, Dulon D, Wells S, Williams F, Petit C, Dawson S, Brown S, Marcotti W, [El-Amraoui A*](#), Bowl M* (2019) *Clarin-2* is essential for hearing by maintaining stereocilia integrity and function. *EMBO Mol. Med.* 11(9):e10288. *Co-senior/corresponding authorships. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6728604/>
- Trouillet A, Dubus E, Dégardin J, Estivallet A, Ivkovic I, Godefroy D, Garcia-Ayuso D, Simonutti M, Sahly I, Sahel JA, [El-Amraoui A](#), Petit C, Picaud S. (2018) Cone degeneration is triggered by the absence of *USH1* proteins but prevented by antioxidant treatments. *Sci Rep.* 8:1968. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5792440/>
- Booth K, Kahrizi K, Babanejad M, Daghagh H, Bademici G, Arzhanghi S, Zareabodollahi D, Duman D, [El-Amraoui A](#), Tekin M, Najmabadi H, Azaiez H, Smith RJ (2018) Variants in *CIB2* cause DFNB48 and not *USH1J*. *Clin. Genet.* Nov 7. doi: 10.1111/cge.13170. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5851821/>
- [Dulon D*](#), Papal S, Patni P, Cortese M, Vincent P, Tertrais M, Emptoz A, Tlili^A, Bouleau Y, Michel V, Delmaghani D, Aghaie A, Pepermans E, Allegria-Prevot O, Akil O, Lustig L, Avan P, Safieddine S, [Petit C*](#), and [El-Amraoui A*](#). (2018) *Clarin-1* defect results in a rescuable auditory hair cell synaptopathy. *J. Clin. Invest.* 128(8):3382-3401. doi:10.1172/JCI94351. <https://www.jci.org/articles/view/94351>
- Schietroma S, Parain K, Estivalet A, Aghaie A, Boutet de Monvel J, Picaud S, Sahel JA, Perron M, [El-Amraoui A*](#) & [Petit C*](#). (2017) Shaping of the photoreceptor outer segment by the calyceal processes of the inner segment. *J. Cell Biol.* 216, 1849-1864. *Co-senior authorships. F1000 Medicine "Recommended" selection <http://jcb.rupress.org/content/216/6/1849.long>
- Bahloul A, Pepermas E, Raynal B, Wolff N, Cordier F, England P, Nouaille S, [El-Amraoui A](#), Hardelin JP, Durand D, & Petit C. (2017) Conformational switch of harmonin, a submembrane scaffold protein of hair cell mechanoelectrical transduction machinery. *FEBS Letters.* 91:2299-2310. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5599985/>
- Cortese M, Papal S, Pisciotano F, Elgoyhen AB, Hardelin J.-P, Petit C, [Franchini LF*](#), & [El-Amraoui A*](#). (2017) Spectrin β V adaptive mutations and changes in subcellular location correlate with emergence of hair cell electromotility in mammals. *Proc. Natl Acad. Sci. USA*. 114(8):2054-2059. *Co-senior authorships. <http://www.pnas.org/content/114/8/2054.long>
- Michel V, Booth K, Patni P, Cortese M, Azaiez H, Bahloul A, Kahrizi K, Labbé M, Emptoz A, Lelli A, Dégardin J, Dupont T, Aghaie A, Oficyska D, Picaud S, Najmabadi H, Smith RJ, Bowl MR, Brown SDM, Avan P, Petit C, [El-Amraoui A*](#) (2017) *CIB2*, defective is isolated deafness, is key to auditory hair cells mechanotransduction and survival. *EMBO Mol. Med.* 9:1711-1731. <http://embomolmed.embopress.org/content/9/12/1711.long>
- Bonnet C, Riahi Z, Chantot-Bastaraud S, Smaghe L, Letexier M, Marcaillou C, Lefevre G, Hardelin JP, [El-Amraoui A](#), Singh-Estivalet A, (+ 25 authors TREATRUSH consortium), Audo I, & Petit C. (2016) An innovative strategy for the molecular diagnosis of Usher syndrome identifies causal biallelic mutations in 93% of European patients. *Eur. J. Hum. Genet.* 24:1730-1738. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5117943/>
- Potter P, Bowl M, (+ 44 authors MRC Harwell ageing screen consortium), [El-Amraoui A](#), Petit C, Acevedo-Arozena A, Nolan P, Cox R, Mallon AM, & Brown SD. (2016) Novel gene function revealed by mouse mutagenesis screens for models of age-related disease. *Nat. Comm.* 7:12444. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4992138/>

16. Lelli A, Michel V, Boutet de Monvel J, Cortese M, Bosh-Grau M, Aghaie A, Perfettini I, Dupont T, Avan P, **El-Amraoui A***, Petit C*. (2016) Class III myosins shape the auditory hair bundles by limiting microvilli and stereocilia growth. *J. Cell Biol.* 212, 231-44. *Co-senior and corresponding authors. F1000 F1000 Medicine "Recommended" selection; # cover article; # subject to a commentary <http://jcb.rupress.org/content/212/2/231.long>
17. **El-Amraoui A*** & Petit C*. (2016) Cadherins in the auditory system. Shintaro T. Suzuki & Shinji Hirano (eds.), In *The Cadherin Superfamily*, pp 341-361, Springer, Japan. *Co-senior and corresponding authorships.
18. **El-Amraoui, A***. and Petit, C*. (2014) The retinal phenotype in the Usher syndrome (deaf-blindness in humans): physiopathological and therapeutic insights from animal models. *C R Biol.* 337(3):167-77 *Corresponding authors <https://www.annualreviews.org/doi/full/10.1146/annurev-neuro-061010-113705>
19. Lh riteau E, Petit L, Weber M, Le Meur G, Deschamps J-Y, Libeau L, Mendes-Madeira A, Guihal C, Fran ois A, Guyon R, Provost N, Lemoine F, Papal S, **El-Amraoui A**, Colle M-A, Moullier P and Rolling F. (2014) Successful gene therapy in the RPGRIP1-deficient dog, a large model of cone-rod dystrophy. *Mol Ther.* 22, 265-277. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3918913/>
20. Kamiya K, Michel V, Giraudet F, Riederer B, Foucher I, Papal S, Perfettini I, Le Gal S, Verpy E, Xia W, Seidler U, Georgescu MM, Avan P*, **El-Amraoui A***, Petit C*. (2014) An unusually powerful mode of low-frequency sound interference due to defective hair bundles of the auditory outer hair cells. *Proc Natl Acad Sci USA.* 2014 Jun 11. pii: 201405322. *Co-senior authorships. Press release <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4078795/>
21. Petit, C*., **El-Amraoui, A***. and Avan, P*. (2013) HEARING AND DEAFNESS. Pfaff, D. (ed.), In *Neuroscience in the 21st Century*. Springer-Science, New York. *Corresponding authors
22. Papal S, Cortese M, Legendre K, Sorusch N, Dragavon J, Sahly I, Shorte S, Wolfrum U, Petit C, **El-Amraoui A.** (2013) The giant spectrin β V couples the molecular motors to phototransduction and Usher syndrome type I proteins along their trafficking route. *Hum. Mol. Genet.* 22, 3773-3788. <https://academic.oup.com/hmg/article/22/18/3773/659081>
23. **El-Amraoui, A***. and Petit, C* (2013) Cadherin Defects in Inherited Human Diseases. *Prog. Mol. Biol. Transl. Sci.*, 116C, 361-384. *Corresponding authors https://link.springer.com/chapter/10.1007/978-4-431-56033-3_13
24. Bonnet, C. and **El-Amraoui, A***. (2012) Usher syndrome (sensorineural deafness and retinitis pigmentosa): pathogenesis, molecular diagnosis and therapeutic approaches. *Curr. Opin. Neurol.*, 25, 42-49.
25. Sahly, I., Dufour, E., Schietroma, C., Michel, V., Bahloul, A., Perfettini, I., Pepermans, E., Estivalet, A., Carette, D., Aghaie, A. ...-> Sahel, J-A, **El-Amraoui, A***. and Petit, C*. (2012) Localization of Usher 1 proteins to the photoreceptor calyceal processes, which are absent from mice. *J Cell Biol*, 199, 381-399. * Co-senior authorships. Press release <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3471240/>
26. Safieddine, S*., **El-Amraoui, A***. and Petit, C*. (2012) The auditory hair cell ribbon synapse: from assembly to function. *Annu Rev Neurosci*, 35, 509-528. <https://www.annualreviews.org/doi/full/10.1146/annurev-neuro-061010-113705>
27. Bonnet, C., Grati, M., Marlin, S., Levilliers, J., Hardelin, J.P., Parodi, M., Niasme-Grare, M., Zelenika, D., Delepine, M., Feldmann, D. Jonard L., **El-Amraoui, A.** D. Weil, B. ...-> J.A. Sahel, J. Weissenbach, C. Petit, and F. Denoyelle. (2011) Complete exon sequencing of all known Usher syndrome genes greatly improves molecular diagnosis. *Orphanet J. Rare Dis.*, 6, 21. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3125325/>
28. **El-Amraoui, A***. and Petit, C* (2010) Cadherins as targets for genetic diseases. *Cold Spring Harb. Perspect. Biol.*, 2, a003095. *Corresponding authors <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2827896>
29. Legendre, K., Safieddine, S., Kussel-Andermann, P., Petit, C. and **El-Amraoui, A***. (2008) α h11-betaV spectrin bridges the plasma membrane and cortical lattice in the lateral wall of the auditory outer hair cells. *J. Cell Sci.*, 121, 3347-3356. * Cover & Highlight in the same issue. <https://jcs.biologists.org/content/121/20/3347>
30. **El-Amraoui, A.**, Bahloul, A. and Petit, C. (2008) Coluccio, L.M. (ed.), In *Myosins : A Superfamily of Molecular Motors*. Springer, New York, pp. 353-373. *Corresponding authors
31. Etournay, R., Zwaenepoel, I., Perfettini, I., Legrain, P., Petit, C. and **El-Amraoui, A***. (2007) Shroom2, a myosin-VIIa- and actin-binding protein, directly interacts with ZO-1 at tight junctions. *J. Cell Sci.*, 120, 2838-2850. <https://jcs.biologists.org/content/120/16/2838>
32. Hyenne, V., Louvet-Vallee, S., **El-Amraoui, A.**, Petit, C., Maro, B. and Simmler, M.C. (2005) Vezatin, a protein associated to adherens junctions, is required for mouse blastocyst morphogenesis. *Dev. Biol.*, 287, 180-191. <https://www.sciencedirect.com/science/article/pii/S0012160605005981?via%3Dihub>
33. Adato, A., Lefevre, G., Delprat, B., Michel, V., Michalski, N., Chardenoux, S., Weil, D., **El-Amraoui, A.** and Petit, C. (2005) Usherin, the defective protein in Usher syndrome type IIA, is likely to be a component of interstereocilia ankle links in the inner ear sensory cells. *Hum. Mol. Genet.*, 14, 3921-3932. <https://academic.oup.com/hmg/article/14/24/3921/2355862>
34. Adato, A., Michel, V., Kikkawa, Y., Reiners, J., Alagramam, K.N., Weil, D., Yonekawa, H., Wolfrum, U., **El-Amraoui, A.** and Petit, C. (2005) Interactions in the network of Usher syndrome type 1 proteins. *Hum. Mol. Genet.*, 14, 347-356. <https://academic.oup.com/hmg/article/14/3/347/746518>

35. Delprat, B., Michel, V., Goodyear, R., Yamasaki, Y., Michalski, N., **El-Amraoui, A.**, Perfettini, I., Legrain, P., Richardson, G., Hardelin, J.P. and Petit, C. (2005) Myosin XVa and whirlin, two deafness gene products required for hair bundle growth, are located at the stereocilia tips and interact directly. *Hum. Mol. Genet.*, **14**, 401-410. <https://academic.oup.com/hmg/article/14/3/401/746539>
36. Etournay, R*, **El-Amraoui, A***, Bahloul, A., Blanchard, S., Roux, I., Pezeron, G., Michalski, N., Daviet L., Legrain P., Hardelin J-P., and Petit C. (2005) PHR1, an integral membrane protein of the inner ear sensory cells, directly interacts with myosin 1c and myosin VIIa. *J. Cell Sci.*, **118**, 2891-2899. *co-first; <https://jcs.biologists.org/content/118/13/2891>
37. **El-Amraoui, A*** and Petit, C*. (2005) Usher I syndrome: unravelling the mechanisms that underlie the cohesion of the growing hair bundle in inner ear sensory cells. *J. Cell Sci.*, **118**, 4593-4603. * Corresponding author <https://jcs.biologists.org/content/118/20/4593>
38. Sousa, S., Cabanes, D., El-Amraoui, A., Petit, C., Lecuit, M. and Cossart, P. (2004) Unconventional myosin VIIa and vezatin, two proteins crucial for Listeria entry into epithelial cells. *J. Cell Sci.*, **117**, 2121-2130. <https://jcs.biologists.org/content/117/10/2121>
39. Mburu, P*, Mustapha, M*, Varela, A*, Weil, D*, **El-Amraoui, A***, Holme, R.H., Rump, A., Hardisty, R.E., Blanchard, S., Coimbra, R.S. Perfettini I, Parkinson N, Mallon AM, Rogers M, Paige A, Moir L, Clay J, Rosenthal A, Liu XZ, Blanco G, Steel K, Petit C, and Brown SM. (2003) Defects in whirlin, a PDZ domain molecule involved in stereocilia elongation, cause deafness in the whirler mouse and families with DFNB31. *Nat. Genet.*, **34**, 421-428. *co-first authors <https://www.nature.com/articles/ng1208>
40. Reiners, J., Reidel, B., **El-Amraoui, A.**, Boeda, B., Huber, I., Petit, C. and Wolfrum, U. (2003) Differential distribution of harmonin isoforms and their possible role in Usher-1 protein complexes in mammalian photoreceptor cells. *Invest. Ophthalmol. Vis. Sci.*, **44**, 5006-5015. <https://iovs.arvojournals.org/article.aspx?articleid=2182316>
41. Weil, D*, Masmoudi, S*, **El-Amraoui, A***, Mustapha, M., Kikkawa, Y., Laine, S., Delmaghani, S., Adato, A., Nadifi, S., Zina, Z.B. Hamel C, Gal A, Ayadi H, Yonekawa H, and Petit C. (2003) Usher syndrome type I G (USH1G) is caused by mutations in the gene encoding SANS, a protein that associates with the USH1C protein, harmonin. *Hum. Mol. Genet.*, **12**, 463-4671. *co-first authors <https://academic.oup.com/hmg/article/12/5/463/707029>
42. Waselle, L., Coppola, T., Fukuda, M., Iezzi, M., **El-Amraoui, A.**, Petit, C. and Regazzi, R. (2003) Involvement of the Rab27 binding protein Slac2c/MyRIP in insulin exocytosis. *Mol. Biol. Cell*, **14**, 4103-4113. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC207003/>
43. Desnos, C., Schonn, J.S., Huet, S., Tran, V.S., **El-Amraoui, A.**, Raposo, G., Fanget, I., Chapuis C, Menasche G, de Saint Basile G, Petit C, Cribier S, Henry JP, and Darchen F. (2003) Rab27A and its effector MyRIP link secretory granules to F-actin and control their motion towards release sites. *J. Cell Biol.*, **163**, 559-570. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2173641/>
44. Boeda, B*, **El-Amraoui, A***, Bahloul, A., Goodyear, R., Daviet, L., Blanchard, S., Perfettini, I., Fath, K.R., Shorte S., Reiners J., Houdusse A, Legrin P, Wolfrum W, Richardson G, and Petit C. (2002) Myosin VIIa, harmonin and cadherin 23, three Usher I gene products that cooperate to shape the sensory hair cell bundle. *EMBO J.*, **21**, 6689-6699. *co-first authors <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC139109/>
45. **El-Amraoui, A.**, Schonn, J.S., Kussel-Andermann, P., Blanchard, S., Desnos, C., Henry, J.P., Wolfrum, U., Darchen, F. and Petit, C. (2002) MyRIP, a novel Rab effector, enables myosin VIIa recruitment to retinal melanosomes. *EMBO Rep.*, **3**, 463-470. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1084103/>
46. **El-Amraoui, A.**, Cohen-Salmon, M., Petit, C. and Simmler, M.C. (2001) Spatiotemporal expression of otogelin in the developing and adult mouse inner ear. *Hear. Res.*, **158**, 151-159. <https://www.sciencedirect.com/science/article/pii/S0378595501003124>
47. Kharkovets, T., Hardelin, J.P., Safieddine, S., Schweizer, M., **El-Amraoui, A.**, Petit, C. and Jentsch, T.J. (2000) KCNQ4, a K⁺ channel mutated in a form of dominant deafness, is expressed in the inner ear and the central auditory pathway. *Proc. Natl Acad. Sci. USA*, **97**, 4333-4338. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC18242/>
48. Kussel-Andermann, P., **El-Amraoui, A.**, Safieddine, S., Hardelin, J.P., Nouaille, S., Camonis, J. and Petit, C. (2000) Unconventional myosin VIIA is a novel A-kinase-anchoring protein. *J. Biol. Chem.*, **275**, 29654-29659. <https://www.jbc.org/content/275/38/29654.full.pdf>
49. Kussel-Andermann, P*, **El-Amraoui, A***, Safieddine, S., Nouaille, S., Perfettini, I., Lecuit, M., Cossart, P., Wolfrum, U. and Petit, C. (2000) Vezatin, a novel transmembrane protein, bridges myosin VIIA to the cadherin-catenins complex. *EMBO J.*, **19**, 6020-6029. *co-first authors <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC305826/>
50. Simmler, M.C., Cohen-Salmon, M., **El-Amraoui, A.**, Guillaud, L., Benichou, J.C., Petit, C. and Panthier, J.J. (2000) Targeted disruption of otog results in deafness and severe imbalance. *Nat. Genet.*, **24**, 139-143. https://www.nature.com/articles/ng0200_139
51. Yasunaga, S., Grati, M., Cohen-Salmon, M., **El-Amraoui, A.**, Mustapha, M., Salem, N., El-Zir, E., Loiselet, J. and Petit, C. (1999) A mutation in OTOF, encoding otoferlin, a FER-1-like protein, causes DFNB9, a nonsyndromic form of deafness. *Nat. Genet.*, **21**, 363-369. https://www.nature.com/articles/ng0499_363
52. Kubisch, C., Schroeder, B.C., Friedrich, T., Lutjohann, B., **El-Amraoui, A.**, Marlin, S., Petit, C. and Jentsch, T.J. (1999) KCNQ4, a novel potassium channel expressed in sensory outer hair cells, is mutated in dominant deafness. *Cell*, **96**, 437-446. [https://www.cell.com/fulltext/S0092-8674\(00\)80556-5](https://www.cell.com/fulltext/S0092-8674(00)80556-5)

53. Kalatzis, V., Sahly, I., **El-Amraoui, A.** and Petit, C. (1998) Eya1 expression in the developing ear and kidney: towards the understanding of the pathogenesis of Branchio-Oto-Renal (BOR) syndrome. *Dev. Dyn.*, **213**, 486-499. <https://pubmed.ncbi.nlm.nih.gov/9853969/>
54. Cohen-Salmon, M., **El-Amraoui, A.**, Leibovici, M. and Petit, C. (1997) Otogelin: a glycoprotein specific to the acellular membranes of the inner ear. *Proc. Natl Acad. Sci. USA*, **94**, 14450-14455. <https://www.pnas.org/content/94/26/14450>
55. Crozet, F., **El-Amraoui, A.**, Blanchard, S., Lenoir, M., Ripoll, C., Vago, P., Hamel, C., Fizames, C., Levi-Acobas, F., Depetris, D. Weil D, Pujol R, and Petit C. (1997) Cloning of the genes encoding two murine and human cochlear unconventional type I myosins. *Genomics*, **40**, 332-341. <https://www.sciencedirect.com/science/article/pii/S0888754396945267?via%3Dihub>
56. Sahly, I., **El-Amraoui, A.**, Abitbol, M., Petit, C. and Dufier, J.L. (1997) Expression of myosin VIIA during mouse embryogenesis. *Anat. Embryol. (Berl)*, **196**, 159-170. <https://link.springer.com/article/10.1007/s004290050088>
57. **El-Amraoui, A.** and Petit, C. (1997) Towards a molecular understanding of the pathophysiology of the Usher syndrome. *J. Audiol. Med.*, **6**, 170-182.
58. Dubois, P.M., **El-Amraoui, A.** and Heritier, A.G. (1997) Development and differentiation of pituitary cells. *Microsc. Res. Tech.*, **39**, 98-113. [https://onlinelibrary.wiley.com/doi/abs/10.1002/\(SICI\)1097-0029\(19971015\)39:2%3C98::AID-JEMT2%3E3.0.CO;2-S](https://onlinelibrary.wiley.com/doi/abs/10.1002/(SICI)1097-0029(19971015)39:2%3C98::AID-JEMT2%3E3.0.CO;2-S)
59. **El-Amraoui, A.**, Sahly, I., Picaud, S., Sahel, J., Abitbol, M. and Petit, C. (1996) Human Usher 1B/mouse shaker-1: the retinal phenotype discrepancy explained by the presence/absence of myosin VIIA in the photoreceptor cells. *Hum. Mol. Genet.*, **5**, 1171-1178. <https://academic.oup.com/hmg/article/5/8/1171/2568817>
60. Weil, D., Levy, G., Sahly, I., Levi-Acobas, F., Blanchard, S., **El-Amraoui, A.**, Crozet, F., Philippe, H., Abitbol, M. and Petit, C. (1996) Human myosin VIIA responsible for the Usher 1B syndrome: a predicted membrane-associated motor protein expressed in developing sensory epithelia. *Proc. Natl Acad. Sci. USA*, **93**, 3232-3237. <https://www.pnas.org/content/93/8/3232>
61. Verney, C., **El-Amraoui, A.** and Zecevic, N. (1996) Comigration of tyrosine hydroxylase- and gonadotropin-releasing hormone-immunoreactive neurons in the nasal area of human embryos. *Brain Res. Dev. Brain Res.*, **97**, 251-259. <https://www.sciencedirect.com/science/article/pii/S0165380696001472?via%3Dihub>
62. **El-Amraoui, A.**, Berghman, L.R. and Dubois, P.M. (1995) Interactions between adenohipophyseal, hypothalamic and nasal presumptive territories during early neurulation process. *Endocrine*, **1**, 335-343. <https://link.springer.com/article/10.1007/BF03021416>
63. Dubois, P.M. and **El-Amraoui, A.** (1995) The embryology of the pituitary gland. *Trends in Endocrinology and Metabolism*, **6**, 1-7. <https://www.cell.com/action/showPdf?pii=1043-2760%2894%2900090-Q>
64. **El-Amraoui, A.** and Dubois, P.M. (1993) Experimental evidence for an early commitment of gonadotropin-releasing hormone neurons, with special regard to their origin from the ectoderm of nasal cavity presumptive territory. *Neuroendocrinology*, **57**, 991-1002. <https://pubmed.ncbi.nlm.nih.gov/8232774/>
65. **El-Amraoui, A.** and Dubois, P.M. (1993) Experimental evidence for the early commitment of the presumptive adenohipophysis. *Neuroendocrinology*, **58**, 609-615. <https://www.karger.com/Article/Abstract/126599>

Other publications: (in French)

- 1- **El-Amraoui, A***. (1996) Apport des modèles animaux à l'étude des rétinites pigmentaires. *Annales de l'Institut Pasteur*, **6**, 225-232.
- 2- **El-Amraoui, A***, Lefevre, G., Hardelin, J.P. and Petit, C. (2005) Syndrome de Usher de type 1 et développement de la touffe ciliaire des cellules sensorielles de l'oreille interne. *Med Sci (Paris)*, **21**, 737-740.
- 3- Legendre, K., Petit, C. and **El-Amraoui, A***. (2009) La cellule ciliée externe de la cochlée des mammifères: un amplificateur aux propriétés exceptionnelles. *Med Sci (Paris)*, **25**, 117-120. * Corresponding author
- 5- **El-Amraoui, A***. and Petit, C* (2010) Thérapie cellulaire dans l'oreille interne : nouveaux développements et perspectives. *Med Sci (Paris)*, **26**, 981-985. * Corresponding authors
- 6- **El-Amraoui, A***. and Petit, C* (2011) Vers une thérapie génique et cellulaire dans l'oreille interne: actualités et perspectives. *Audiology infos*, **19**, 1-4. *Corresponding authors
- 7- **El-Amraoui, A***. and Petit, C* (2012) Les thérapies génique et cellulaire à l'écoute de l'oreille interne. *Biofutur*, **337**, 40-42. *Corresponding author
- 8- **El-Amraoui, A***. and Petit, C* (2012) Atteintes héréditaires de l'audition. *Biofutur*, **337**, 28-29. *Corresponding authors
- 9- Masson-Garcia C, **El-Amraoui A*** (2016) le syndrome de Usher : les dernières avancées scientifiques. *Rétino* (Revue de l'association Retina France) **97**, 3-5.
- 10- **El-Amraoui A*** (2017) Développement d'une thérapie génique pour restaurer la fonction visuelle dans le syndrome de Usher. *Rétino* (Revue de l'association Retina France) **101**, p16.
- 11- Denoyelle F*, & **El-Amraoui A*** (2018) Les thérapies géniques appliquées aux atteintes de l'oreille interne : actualités et perspectives. Dans *Surdités : actualités, innovations et espoirs. Rapport 2018 de la Société française d'ORL et de chirurgie cervico-faciale*, Edition Elsevier Masson, 314 pages.

- 12- **El-Amraoui, A***. Présentation de l'équipe « Déficiences Sensorielles Progressives, Pathophysiologie et Thérapie »: Mieux comprendre pour mieux combattre les déficiences sensorielles (audition, équilibre, et vision). *Les cahiers de l'audition*, 32 (6) : 22-23. (2019)
- 13- Picaud S*, & **El-Amraoui A*** (2019) Les organes des sens ; Dans "Le cerveau en lumières", par Hirsch E. & Poulain B. Edition Odile Jacob.
- 14- **El-Amraoui A*** (2021) Vieillesse dans l'oreille interne : bases génétiques et conséquences à l'échelle cellulaire et moléculaire. Rapport 2021 de la Société française d'ORL et de chirurgie cervico-faciale, Edition Elsevier Masson (in press).

SELECTED INVITED LECTURES AND CONTRIBUTING TALKS

(out of 40 talks since 2015)

- Disease mechanisms & therapies in late-onset progressive hearing loss **Sept 21**, 2020, Ageing club, Centre François Jacob, Institut Pasteur, Paris, **France**
- Disease mechanisms & therapies in progressive hearing loss. Pasteur--CSIR-CCMB workshop, Hyderabad, **India** (Jan 20-23, 2020)
- Le syndrome de Usher (Surdi-cécité chez l'homme) : des mécanismes physiopathologiques à la thérapie. 15^{ème} congrès SFA (soc Française d'Audiologie), Lyon, **France** (13-14 Déc, 2019)
- Understanding hearing and balance impairments through the lens of deafness genes; French Brazilian Symposium on Hearing: Genetics, cognition and Technology, Belo Horizonte, **Brazil** (Nov 28-29, 2019)
- Disease mechanisms & therapies in progressive hearing loss: insights from tetraspan-like proteins. CONICET, Buenos Aires, **Argentina** (Nov 26, 2019)
- Disease mechanisms and therapy for progressive hearing impairment; Annual meeting of Belgium Royal Society of otorhinolaryngology, Louvain-la-Neuve, **Belgium** (Nov 22-23, 2019)
- Promises and future challenges of inner ear gene therapies in Usher syndrome (deaf-blindness in humans); SENSGENE Annual Day, Faculté de chirurgie dentaire, Strasbourg **France** (Nov 20, 2019)
- Disease mechanisms & therapies in progressive hearing loss: insights from tetraspan-like proteins, Inaugural meeting of IDA, Collège de France, Paris, **France** (Sept 16-17, 2019)
- Late-onset & progressive hearing impairments from genes, pathogenesis to therapy: insights from clarin tetraspan proteins. CORLAS annual meeting, Bern, **Switzerland** (August 25-28).
- Hair cell development and maturation. Woods Hole Marine Biology Laboratory, **USA** (August 8-11, 2019)
- Modélisation de la rétinopathie Usher, quand le choix de l'espèce est capital. Collège de France, 75005, Paris, **France** (7 Mai 2019)
- LIGHT4DEAF, Disease modelling and therapies in Usher cellular and animal models. Hôpital 15-20, Paris, **France** (17 Avril 2019)
- Disease mechanisms and gene-environment interactions in USH3 progressive hearing loss. Radboud university medical center, Nijmegen, **The Netherlands** (Nov 28, 2018)
- Disease mechanisms and gene-environment interactions in progressive hearing loss. MRC Harwell, **United Kingdom** (Oct 30, 2018)
- The retinal phenotype of Usher syndrome: pathophysiological insights from animal models, 4th International Symposium on Usher syndrome, Atrium Hotel, Mainz, **Germany** (July 19, 2018)
- Association for Research in Otolaryngology (ARO), Baltimore, MA, **USA** (February 23, 2017)
- Cours International de *médecine génomique, du diagnostic à la thérapie*. 17-21 octobre 2016, Institut Pasteur Tunis, **Tunisia** (October 20, 2016)
- Association for Research in Otolaryngology (ARO), San Diego, CA, **USA** (Feb 23, 2016)
- 1st North African Workshop on Genomics and Community Genetics – Institut Pasteur Casablanca, **Morocco** (Nov 16, 2015).