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Employment

Director

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Nanyang Technological University
Jan 1 2000 → present

Research outputs

Throwing a spotlight on genomic dark matter: The power and potential of transposon-insertion sequencing
Nolan, L. M., Webber, M. A. & Filloux, A., Jun 2025, In: Journal of Biological Chemistry. 301, 6, 110231.

Functionality of chimeric TssA proteins in the type VI secretion system reveals sheath docking specificity within their N-terminal domains

Fecht, S., Paracuellos, P., Subramoni, S., Tan, C. A. Z., Ilangovan, A., Costa, T. R. D. & Filloux, A., Dec 2024, In: Nature Communications. 15, 1, 4283.

The dual GGDEF/EAL domain enzyme PA0285 is a *Pseudomonas* species housekeeping phosphodiesterase regulating early attachment and biofilm architecture

Eilers, K., Hoong Yam, J. K., Liu, X., Goh, Y. F., To, K. N., Paracuellos, P., Morton, R., Brizuela, J., Hui Yong, A. M., Givskov, M., Freibert, S. A., Bange, G., Rice, S. A., Steinchen, W. & Filloux, A., Feb 2024, In: Journal of Biological Chemistry. 300, 2, 105659.

Bacterial type VI secretion system helps prevent cheating in microbial communities

Filloux, A., Jan 1 2024, In: ISME Journal. 18, 1, wræ003.

Assembly mechanism of a Tad secretion system secretin-pilotin complex

Tassinari, M., Rudzite, M., Filloux, A. & Low, H. H., Dec 2023, In: Nature Communications. 14, 1, 5643.

Characterization of TelE, a T7SS LXG Effector Exhibiting a Conserved C-Terminal Glycine Zipper Motif Required for Toxicity

The, W. K., Ding, Y., Gubellini, F., Filloux, A., Poyart, C., Givskov, M. & Dramsie, S., Aug 2023, In: Microbiology spectrum. 11, 4

Effectiveness of *Pseudomonas aeruginosa* type VI secretion system relies on toxin potency and type IV pili-dependent interaction

Rudzite, M., Subramoni, S., Endres, R. G. & Filloux, A., May 2023, In: PLoS Pathogens. 19, 5 May, e1011428.

Architecture of the biofilm-associated archaic Chaperone-Usher pilus CupE from *Pseudomonas aeruginosa*

Böhning, J., Döbelstein, A. W., Sulkowski, N., Eilers, K., von Kögeln, A., Tarafder, A. K., Peak-Chew, S. Y., Skehel, M., Alva, V., Filloux, A. & Bharat, T. A. M., Apr 2023, In: PLoS Pathogens. 19, 4, e1011177.

Transcriptional organization and regulation of the *Pseudomonas putida* K1 type VI secretion system gene cluster

Bernal, P., Civantos, C., Pacheco-Sánchez, D., Quesada, J. M., Filloux, A. & Llamas, M. A., 2023, In: Microbiology. 169, 1, 001295.

Supporting the strategic pillars of translational research in biofilms
Camara, M. & Filloux, A., Dec 2022, In: npj Biofilms and Microbiomes. 8, 1, 90.

Quorum sensing in human gut and food microbiomes: Significance and potential for therapeutic targeting
Falà, A. K., Álvarez-Ordóñez, A., Filloux, A., Gahan, C. G. M. & Cotter, P. D., Nov 25 2022, In: Frontiers in Microbiology. 13, 1002185.

Identification and characterisation of G-quadruplex DNA-forming sequences in the *Pseudomonas aeruginosa* genome
Evans, L., Kotar, A., Valentini, M., Filloux, A., Jamshidi, S., Plavec, J., Rahman, K. M. & Vilar, R., Nov 15 2022, In: RSC Chemical Biology. 4, 1, p. 94-100 7 p.

An ADP-ribosyltransferase toxin kills bacterial cells by modifying structured non-coding RNAs
Bullen, N. P., Sychantha, D., Thang, S. S., Culviner, P. H., Rudzite, M., Ahmad, S., Shah, V. S., Filloux, A., Prehna, G. & Whitney, J. C., Sept 15 2022, In: Molecular Cell. 82, 18, p. 3484-3498.e11

Pf4 Phage Variant Infection Reduces Virulence-Associated Traits in *Pseudomonas aeruginosa*
Tortuel, D., Tahrioui, A., David, A., Cambronel, M., Nilly, F., Clamens, T., Maillot, O., Barreau, M., Feuilloley, M. G. J., Lesouhaitier, O., Filloux, A., Bouffartigues, E., Cornelis, P. & Chevalier, S., Sept 2022, In: Microbiology spectrum. 10, 5

Phenotypic and integrated analysis of a comprehensive *Pseudomonas aeruginosa* PAO1 library of mutants lacking cyclic-di-GMP-related genes
Eilers, K., Kuok Hoong Yam, J., Morton, R., Mei Hui Yong, A., Brizuela, J., Hadjicharalambous, C., Liu, X., Givskov, M., Rice, S. A. & Filloux, A., Jul 22 2022, In: Frontiers in Microbiology. 13, 949597.

Structure of ATP synthase from ESKAPE pathogen *Acinetobacter baumannii*
Demmer, J. K., Phillips, B. P., Uhrig, O. L., Filloux, A., Allsopp, L. P., Bubltz, M. & Meier, T., Feb 2022, In: Science advances. 8, 7, eabl5966.

RpoN/Sfa2-dependent activation of the *Pseudomonas aeruginosa* H2-T6SS and its cognate arsenal of antibacterial toxins
Allsopp, L. P., Collins, A. C. Z., Hawkins, E., Wood, T. E. & Filloux, A., Jan 11 2022, In: Nucleic Acids Research. 50, 1, p. 227-243 17 p.

Bacterial protein secretion systems: Game of types
Filloux, A., 2022, In: Microbiology. 168, 5, 001193.

Preface
Filloux, A. & Ramos, J. L., 2022, In: Advances in Experimental Medicine and Biology. 1386, p. v-x

Identification of Tse8 as a Type VI secretion system toxin from *Pseudomonas aeruginosa* that targets the bacterial transamidosome to inhibit protein synthesis in prey cells
Nolan, L. M., Cain, A. K., Clamens, T., Furniss, R. C. D., Manoli, E., Sainz-Polo, M. A., Dougan, G., Albesa-Jové, D., Parkhill, J., Mavridou, D. A. I. & Filloux, A., Sept 2021, In: Nature Microbiology. 6, 9, p. 1199-1210 12 p.

Detection of Colistin Resistance in *Pseudomonas aeruginosa* Using the MALDIxin Test on the Routine MALDI Biotyper Sirius Mass Spectrometer
Jeannot, K., Hagart, K., Dortet, L., Kostrzewa, M., Filloux, A., Plesiat, P. & Larrouy-Maumus, G., Aug 31 2021, In: Frontiers in Microbiology. 12, 725383.

Dual role of a (p)ppGpp- and (p)ppApp-degrading enzyme in biofilm formation and interbacterial antagonism
Steinchen, W., Ahmad, S., Valentini, M., Eilers, K., Majkani, M., Altegoer, F., Lechner, M., Filloux, A., Whitney, J. C. & Bange, G., Jun 2021, In: Molecular Microbiology. 115, 6, p. 1339-1356 18 p.

A novel stabilization mechanism for the type VI secretion system sheath

Bernal, P., Christopher, R., Fecht, S., Leung, R. C. Y., Spiga, L., Mavridou, D. A. I. & Filloux, A., Feb 16 2021, In: *Proceedings of the National Academy of Sciences of the United States of America*. 118, 7, e2008500118.

The *Pseudomonas aeruginosa* whole genome sequence: A 20th anniversary celebration

Brinkman, F. S. L., Winsor, G. L., Done, R. E., Filloux, A., Francis, V. I., Goldberg, J. B., Greenberg, E. P., Han, K., Hancock, R. E. W., Haney, C. H., Häußler, S., Klockgether, J., Lamont, I. L., Levesque, R. C., Lory, S., Nikel, P. I., Porter, S. L., Scurlock, M. W., Schweizer, H. P. & Tümmeler, B. & 2 others, Wang, M. & Welch, M., Jan 2021, *Advances in Microbial Physiology*. Poole, R. K. (ed.). Academic Press, p. 25-88 64 p. (Advances in Microbial Physiology; vol. 79).

The breadth and molecular basis of hcp-driven type vi secretion system effector delivery

Howard, S. A., Furniss, R. C. D., Bonini, D., Amin, H., Paracuellos, P., Zlotkin, D., Costa, T. R. D., Levy, A., Mavridou, D. A. I. & Filloux, A., 2021, In: *mBio*. 12, 3, e00262-21.

Role of Recipient Susceptibility Factors During Contact-Dependent Interbacterial Competition

Lin, H. H., Filloux, A. & Lai, E. M., Nov 12 2020, In: *Frontiers in Microbiology*. 11, 603652.

Solving the Puzzle: Connecting a Heterologous *Agrobacterium tumefaciens* T6SS Effector to a *Pseudomonas aeruginosa* Spike Complex

Wettstadt, S., Lai, E. M. & Filloux, A., Jun 23 2020, In: *Frontiers in cellular and infection microbiology*. 10, 291.

Detection of Colistin Resistance in *Salmonella enterica* Using MALDIxin Test on the Routine MALDI Biotyper Sirius Mass Spectrometer

Dortet, L., Bonnin, R. A., Le Hello, S., Fabre, L., Bonnet, R., Kostrzewa, M., Filloux, A. & Larrouy-Maumus, G., Jun 3 2020, In: *Frontiers in Microbiology*. 11, 1141.

Causalities of war: The connection between type VI secretion system and microbiota

Allsopp, L. P., Bernal, P., Nolan, L. M. & Filloux, A., Mar 1 2020, In: *Cellular Microbiology*. 22, 3, e13153.

Optimization of the MALDIxin test for the rapid identification of colistin resistance in *Klebsiella pneumoniae* using MALDI-TOF MS

Dortet, L., Broda, A., Bernabeu, S., Glupczynski, Y., Bogaerts, P., Bonnin, R., Naas, T., Filloux, A. & Larrouy-Maumus, G., Jan 1 2020, In: *Journal of Antimicrobial Chemotherapy*. 75, 1, p. 110-116 7 p.

Manipulating the type VI secretion system spike to shuttle passenger proteins

Wettstadt, S. & Filloux, A., 2020, In: *PLoS One*. 15, 2, e0228941.

Complete genome sequence of *pseudomonas aeruginosa* reference strain PAK

Cain, A. K., Nolan, L. M., Sullivan, G. J., Whitchurch, C. B., Filloux, A. & Parkhill, J., Oct 10 2019, In: *Microbiology Resource Announcements*. 8, 41, e00865-19.

The *Pseudomonas aeruginosa* T6SS Delivers a Periplasmic Toxin that Disrupts Bacterial Cell Morphology

Wood, T. E., Howard, S. A., Förster, A., Nolan, L. M., Manoli, E., Bullen, N. P., Yau, H. C. L., Hachani, A., Hayward, R. D., Whitney, J. C., Vollmer, W., Freemont, P. S. & Filloux, A., Oct 1 2019, In: *Cell Reports*. 29, 1, p. 187-201.e7

Biofilms 2018: A diversity of microbes and mechanisms

Fuqua, C., Filloux, A., Ghigo, J. M. & Visick, K. L., Sept 1 2019, In: *Journal of Bacteriology*. 201, 18, e00118-19.

Looking inside an injection system

Howard, S. A. & Filloux, A., Sept 2019, In: *eLife*. 8, e50815.

Chronic infection by controlling inflammation

Filloux, A. & Davies, J. C., Mar 1 2019, In: *Nature Microbiology*. 4, 3, p. 378-379 2 p.

Importance of flagella in acute and chronic *Pseudomonas aeruginosa* infections

Lorenz, A., Preuße, M., Bruchmann, S., Pawar, V., Grahl, N., Pils, M. C., Nolan, L. M., Filloux, A., Weiss, S. & Häussler, S., Mar 2019, In: *Environmental Microbiology*. 21, 3, p. 883-897 15 p.

Cyclic di-GMP inactivates T6SS and T4SS activity in *Agrobacterium tumefaciens*

McCarthy, R. R., Yu, M., Eilers, K., Wang, Y. C., Lai, E. M. & Filloux, A., 2019, In: *Molecular Microbiology*. 112, 2, p. 632-648 17 p.

Delivery of the *Pseudomonas aeruginosa* phospholipase effectors PldA and PldB in a VgrG- And H2-T6SS-dependent manner

Wettstadt, S., Wood, T. E., Fecht, S. & Filloux, A., 2019, In: *Frontiers in Microbiology*. 10, JULY, 1718.

Detection of colistin resistance in *Escherichia coli* by use of the MALDI biotyper sirius mass spectrometry system

Furniss, R. C. D., Dortet, L., Bolland, W., Drews, O., Sparbier, K., Bonnin, R. A., Filloux, A., Kostrzewa, M., Mavridou, D. A. I. & Larrouy-Maumus, G., 2019, In: *Journal of Clinical Microbiology*. 57, 12, e01427-19.

Multiple roles of c-di-GMP signaling in bacterial pathogenesis

Valentini, M. & Filloux, A., 2019, In: *Annual Review of Microbiology*. 73, p. 387-406 20 p.

PAAR proteins act as the 'sorting hat' of the type VI secretion system

Wood, T. E., Howard, S. A., Wettstadt, S. & Filloux, A., 2019, In: *Microbiology*. 165, 11, p. 1208-1218 11 p.

The *Pseudomonas aeruginosa* T6SS-VgrG1b spike is topped by a PAAR protein eliciting DNA damage to bacterial competitors

Pissaridou, P., Allsopp, L. P., Wettstadt, S., Howard, S. A., Mavridou, D. A. I. & Filloux, A., Dec 4 2018, In: *Proceedings of the National Academy of Sciences of the United States of America*. 115, 49, p. 12519-12524 6 p.

Rapid detection and discrimination of chromosome-And MCR-plasmid-mediated resistance to polymyxins by MALDI-TOF MS in *Escherichia coli*: The MALDIxin test

Dortet, L., Bonnin, R. A., Pennisi, I., Gauthier, L., Jousset, A. B., Dabos, L., Furniss, R. C. D., Mavridou, D. A. I., Bogaerts, P., Glupczynski, Y., Potron, A., Plesiat, P., Beyrouthy, R., Robin, F., Bonnet, R., Naas, T., Filloux, A. & Larrouy-Maumus, G., Dec 1 2018, In: *Journal of Antimicrobial Chemotherapy*. 73, 12, p. 3359-3367 9 p.

Rapid detection of colistin resistance in *Acinetobacter baumannii* using MALDI-TOF-based lipidomics on intact bacteria
Dortet, L., Potron, A., Bonnin, R. A., Plesiat, P., Naas, T., Filloux, A. & Larrouy-Maumus, G., Dec 1 2018, In: *Scientific Reports*. 8, 1, 16910.

TagF-mediated repression of bacterial type VI secretion systems involves a direct interaction with the cytoplasmic protein Fha

Lin, J. S., Pissaridou, P., Wu, H. H., Tsai, M. D., Filloux, A. & Lai, E. M., Jun 8 2018, In: *Journal of Biological Chemistry*. 293, 23, p. 8829-8842 14 p.

Shigella-induced emergency granulopoiesis protects Zebrafish Larvae from secondary infection

Willis, A. R., Torraca, V., Gomes, M. C., Shelley, J., Mazon-Moya, M., Filloux, A., Lo Celso, C. & Mostowy, S., May 1 2018, In: *mBio*. 9, 3, e00933-18.

Higher Prevalence of PldA, a *Pseudomonas aeruginosa* Trans-Kingdom H2-Type VI Secretion System Effector, in Clinical Isolates Responsible for Acute Infections and in Multidrug Resistant Strains

Boulant, T., Boudehen, Y. M., Filloux, A., Plesiat, P., Naas, T. & Dortet, L., Mar 29 2018, In: *Frontiers in Microbiology*. 9, 2578.

Multiple structures disclose the secretins' secrets

Filloux, A. & Voulhoux, R., Mar 1 2018, In: *Journal of Bacteriology*. 200, 5, e00702-17.

Pore-forming activity of the *Pseudomonas aeruginosa* type III secretion system translocon alters the host epigenome
Dortet, L., Lombardi, C., Cretin, F., Dessen, A. & Filloux, A., Mar 1 2018, In: *Nature Microbiology*. 3, 3, p. 378-386 9 p.

Atomic Structure of Type VI Contractile Sheath from *Pseudomonas aeruginosa*

Salih, O., He, S., Planamente, S., Stach, L., MacDonald, J. T., Manoli, E., Scheres, S. H. W., Filloux, A. & Freemont, P. S., Feb 6 2018, In: *Structure*. 26, 2, p. 329-336.e3

Lifestyle transitions and adaptive pathogenesis of *Pseudomonas aeruginosa*

Valentini, M., Gonzalez, D., Mavridou, D. A. & Filloux, A., Feb 2018, In: *Current Opinion in Microbiology*. 41, p. 15-20 6 p.

Type VI secretion systems in plant-associated bacteria

Bernal, P., Llamas, M. A. & Filloux, A., Jan 2018, In: *Environmental Microbiology*. 20, 1, p. 1-15 15 p.

A global genomic approach uncovers novel components for twitching motility-mediated biofilm expansion in *Pseudomonas aeruginosa*

Nolan, L. M., Whitchurch, C. B., Barquist, L., Katrib, M., Boinett, C. J., Mayho, M., Goulding, D., Charles, I. G., Filloux, A., Parkhill, J. & Cain, A. K., 2018, In: *Microbial Genomics*. 4, 11, 000229.

A Cell-Free Biosensor for Detecting Quorum Sensing Molecules in *P. aeruginosa*-Infected Respiratory Samples

Wen, K. Y., Cameron, L., Chappell, J., Jensen, K., Bell, D. J., Kelwick, R., Kopniczky, M., Davies, J. C., Filloux, A. & Freemont, P. S., Dec 15 2017, In: *ACS Synthetic Biology*. 6, 12, p. 2293-2301 9 p.

A broad range quorum sensing inhibitor working through sRNA inhibition

Jakobsen, T. H., Warming, A. N., Vejborg, R. M., Moscoso, J. A., Stegger, M., Lorenzen, F., Rybtke, M., Andersen, J. B., Petersen, R., Andersen, P. S., Nielsen, T. E., Tolker-Nielsen, T., Filloux, A., Ingmer, H. & Givskov, M., Dec 1 2017, In: *Scientific Reports*. 7, 1, 9857.

Probing the internal micromechanical properties of *Pseudomonas aeruginosa* biofilms by Brillouin imaging

Karampatzakis, A., Song, C. Z., Allsopp, L. P., Filloux, A., Rice, S. A., Cohen, Y., Wohland, T. & Török, P., Dec 1 2017, In: *npj Biofilms and Microbiomes*. 3, 1, 20.

Professor Dieter Haas (1945-2017)

Heeb, S., Càmara, M., Filloux, A. & Williams, P., Sept 1 2017, In: *FEMS Microbiology Reviews*. 41, 5, p. 597-598 2 p.

RsmA and AmrZ orchestrate the assembly of all three type VI secretion systems in *Pseudomonas aeruginosa*

Allsopp, L. P., Wood, T. E., Howard, S. A., Maggiorelli, F., Nolan, L. M., Wettstadt, S. & Filloux, A., Jul 18 2017, In: *Proceedings of the National Academy of Sciences of the United States of America*. 114, 29, p. 7707-7712 6 p.

A *Pseudomonas aeruginosa* TIR effector mediates immune evasion by targeting UBAP1 and TLR adaptors

Imbert, P. R. C., Louche, A., Luizet, J. B., Grandjean, T., Bigot, S., Wood, T. E., Gagné, S., Blanco, A., Wunderley, L., Terradot, L., Woodman, P., Garvis, S., Filloux, A., Guery, B. & Salcedo, S. P., Jul 3 2017, In: *EMBO Journal*. 36, 13, p. 1869-1887 19 p.

Current and future therapies for *Pseudomonas aeruginosa* infection in patients with cystic fibrosis

Smith, W. D., Bardin, E., Cameron, L., Edmondson, C. L., Farrant, K. V., Martin, I., Murphy, R. A., Soren, O., Turnbull, A. R., Wierre-Gore, N., Alton, E. W., Bundy, J. G., Bush, A., Connett, G. J., Faust, S. N., Filloux, A., Freemont, P. S., Jones, A. L., Takats, Z. & Webb, J. S. & 2 others, Williams, H. D. & Davies, J. C., Jul 1 2017, In: *FEMS Microbiology Letters*. 364, 14, fnx121.

Visualizing antimicrobials in bacterial biofilms: Three-dimensional biochemical imaging using TOF-SIMS

Davies, S. K., Fearn, S., Allsopp, L. P., Harrison, F., Ware, E., Diggle, S. P., Filloux, A., McPhail, D. S. & Bundy, J. G., Jul 1 2017, In: *mSphere*. 2, 4, e00211-17.

The *Pseudomonas putida* T6SS is a plant warden against phytopathogens

Bernal, P., Allsopp, L. P., Filloux, A. & Llamas, M. A., Apr 1 2017, In: ISME Journal. 11, 4, p. 972-987 16 p.

Cyclic-di-GMP regulates lipopolysaccharide modification and contributes to *Pseudomonas aeruginosa* immune evasion

McCarthy, R. R., Mazon-Moya, M. J., Moscoso, J. A., Hao, Y., Lam, J. S., Bordi, C., Mostowy, S. & Filloux, A., Mar 6 2017, In: Nature Microbiology. 2, 17027.

The pangenome of (Antarctic) *Pseudoalteromonas* bacteria: Evolutionary and functional insights

Bosi, E., Fondi, M., Orlandini, V., Perrin, E., Maida, I., de Pascale, D., Tutino, M. L., Parrilli, E., Lo Giudice, A., Filloux, A. & Fani, R., Jan 17 2017, In: BMC Genomics. 18, 1, 93.

Contribution of cyclic di-GMP in the control of type III and type VI secretion in *pseudomonas aeruginosa*

McCarthy, R. R., Valentini, M. & Filloux, A., 2017, *Methods in Molecular Biology*. Humana Press Inc., p. 213-224 12 p. (Methods in Molecular Biology; vol. 1657).

Crystal structure of the CupB6 adhesive tip from the chaperone-usher family of pili from *Pseudomonas aeruginosa*

Rasheed, M., Garnett, J., Pérez-Dorado, I., Muhl, D., Filloux, A. & Matthews, S., Nov 1 2016, In: Biochimica et Biophysica Acta - Proteins and Proteomics. 1864, 11, p. 1500-1505 6 p.

Erratum: The Diguanylate Cyclase HsbD Intersects with the HptB Regulatory Cascade to Control *Pseudomonas aeruginosa* Biofilm and Motility (PLoS Genet (2016) 12:10 (e1006354) DOI: 10.1371/journal.pgen.1006354)

Valentini, M., Laventie, B. J., Moscoso, J. A., Jenal, U. & Filloux, A., Nov 1 2016, In: PLoS Genetics. 12, 11, e1006473.

The Diguanylate Cyclase HsbD Intersects with the HptB Regulatory Cascade to Control *Pseudomonas aeruginosa* Biofilm and Motility

Valentini, M., Laventie, B. J., Moscoso, J., Jenal, U. & Filloux, A., Oct 2016, In: PLoS Genetics. 12, 10, e1006354.

TssA forms a gp6-like ring attached to the type VI secretion sheath

Planamente, S., Salih, O., Manoli, E., Albesa-Jové, D., Freemont, P. S. & Filloux, A., Aug 1 2016, In: EMBO Journal. 35, 15, p. 1613-1627 15 p.

Structural biology: Baseplates in contractile machines

Filloux, A. & Freemont, P., Jun 24 2016, In: Nature Microbiology. 1, 7, 16104.

Biofilms and Cyclic di-GMP (c-di-GMP) signaling: Lessons from *Pseudomonas aeruginosa* and other bacteria

Valentini, M. & Filloux, A., Jun 10 2016, In: Journal of Biological Chemistry. 291, 24, p. 12547-12555 9 p.

Increased airway glucose increases airway bacterial load in hyperglycaemia

Gill, S. K., Hui, K., Farne, H., Garnett, J. P., Baines, D. L., Moore, L. S. P., Holmes, A. H., Filloux, A. & Tregoning, J. S., Jun 8 2016, In: Scientific Reports. 6, 27636.

Pseudomonas aeruginosa infection in cystic fibrosis: pathophysiological mechanisms and therapeutic approaches

Lund-Palau, H., Turnbull, A. R., Bush, A., Bardin, E., Cameron, L., Soren, O., Wierre-Gore, N., Alton, E. W. F. W., Bundy, J. G., Connett, G., Faust, S. N., Filloux, A., Freemont, P., Jones, A., Khoo, V., Morales, S., Murphy, R., Pabary, R., Simbo, A. & Schelenz, S. & 4 others, Takats, Z., Webb, J., Williams, H. D. & Davies, J. C., Jun 2 2016, In: Expert Review of Respiratory Medicine. 10, 6, p. 685-697 13 p.

The Hybrid Histidine Kinase LadS Forms a Multicomponent Signal Transduction System with the GacS/GacA Two-Component System in *Pseudomonas aeruginosa*

Chambonnier, G., Roux, L., Redelberger, D., Fadel, F., Filloux, A., Sivaneson, M., de Bentzmann, S. & Bordi, C., May 2016, In: PLoS Genetics. 12, 5, e1006032.

Type VI secretion and anti-host effectors

Hachani, A., Wood, T. E. & Filloux, A., Feb 1 2016, In: *Current Opinion in Microbiology*. 29, p. 81-93 13 p.

Editorial: The many wonders of the bacterial cell surface

Filloux, A. & Whitfield, C., Jan 19 2016, In: *FEMS Microbiology Reviews*. 40, 2, p. 161-163 3 p.

Direct detection of lipid A on intact Gram-negative bacteria by MALDI-TOF mass spectrometry

Larrouy-Maumus, G., Clements, A., Filloux, A., McCarthy, R. R. & Mostowy, S., Jan 1 2016, In: *Journal of Microbiological Methods*. 120, p. 68-71 4 p.

Diguanylate cyclase DgcP is involved in plant and human *Pseudomonas* spp. infections

Aragon, I. M., Pérez-Mendoza, D., Moscoso, J. A., Faure, E., Guery, B., Gallegos, M. T., Filloux, A. & Ramos, C., Nov 1 2015, In: *Environmental Microbiology*. 17, 11, p. 4332-4351 20 p.

Genome-scale phylogenetic and DNA composition analyses of Antarctic *Pseudoalteromonas* bacteria reveal inconsistencies in current taxonomic affiliation

Bosi, E., Fondi, M., Maida, I., Perrin, E., de Pascale, D., Tutino, M. L., Parrilli, E., Lo Giudice, A., Filloux, A. & Fani, R., Nov 1 2015, In: *Hydrobiologia*. 761, 1, p. 85-95 11 p.

Pel is a cationic exopolysaccharide that cross-links extracellular DNA in the *Pseudomonas aeruginosa* biofilm matrix

Jennings, L. K., Storek, K. M., Ledvina, H. E., Coulon, C., Marmont, L. S., Sadovskaya, I., Secor, P. R., Tseng, B. S., Scian, M., Filloux, A., Wozniak, D. J., Howell, P. L. & Parsek, M. R., Sept 8 2015, In: *Proceedings of the National Academy of Sciences of the United States of America*. 112, 36, p. 11353-11358 6 p.

News and views on protein secretion systems

Filloux, A. & Sagfors, A., Jun 5 2015, *The Comprehensive Sourcebook of Bacterial Protein Toxins*. Elsevier Inc., p. 77-108 32 p.

Internalization of *Pseudomonas aeruginosa* strain PAO1 into epithelial cells is promoted by interaction of a T6SS effector with the microtubule network

Sana, T. G., Baumann, C., Merdes, A., Soscia, C., Rattei, T., Hachani, A., Jones, C., Bennett, K. L., Filloux, A., Superti-Furga, G., Voulhoux, R. & Bleves, S., Jun 2 2015, In: *mBio*. 6, 3, e00712-15.

Structure-function analysis reveals that the *Pseudomonas aeruginosa* Tps4 two-partner secretion system is involved in CupB5 translocation

Garnett, J. A., Muhl, D., Douse, C. H., Hui, K., Busch, A., Omisore, A., Yang, Y., Simpson, P., Marchant, J., Waksman, G., Matthews, S. & Filloux, A., May 1 2015, In: *Protein Science*. 24, 5, p. 670-687 18 p.

Editorial

Filloux, A., Jan 1 2015, In: *FEMS Microbiology Reviews*. 39, 1, p. 1 1 p.

Pseudomonas: Volume 7: New aspects of pseudomonas biology

Ramos, J. L., Goldberg, J. B. & Filloux, A., Jan 1 2015, Springer Netherlands. 316 p.

Preface

Filloux, A. & Ramos, J. L., 2015, In: *Methods in Molecular Biology*. 1149, p. 5-6 2 p.

The absence of the *Pseudomonas aeruginosa* OprF protein leads to increased biofilm formation through variation in c-di-GMP level

Bouffartigues, E., Moscoso, J. A., Duchesne, R., Rosay, T., Fito-Boncompte, L., Gicquel, G., Maillot, O., Bénard, M., Bazire, A., Brenner-Weiss, G., Lesouhaitier, O., Lerouge, P., Dufour, A., Orange, N., Feuilloley, M. G. J., Overhage, J., Filloux, A. & Chevalier, S., 2015, In: *Frontiers in Microbiology*. 6, JUN, 630.

Coevolution of the ATPase ClpV, the sheath proteins TssB and TssC, and the accessory protein TagJ/HsiE1 distinguishes type VI secretion classes

Förster, A., Planamente, S., Manoli, E., Lossi, N. S., Freemont, P. S. & Filloux, A., Nov 21 2014, In: Journal of Biological Chemistry. 289, 47, p. 33032-33043 12 p.

Characterization of a novel Zn²⁺-dependent intrinsic imipenemase from *Pseudomonas aeruginosa*
Fajardo, A., Hernando-Amado, S., Oliver, A., Ball, G., Filloux, A. & Martinez, J. L., Nov 1 2014, In: Journal of Antimicrobial Chemotherapy. 69, 11, p. 2972-2978 7 p.

Agrobacterium tumefaciens deploys a superfamily of type VI secretion DNase effectors as weapons for interbacterial competition in planta
Ma, L. S., Hachani, A., Lin, J. S., Filloux, A. & Lai, E. M., Jul 9 2014, In: Cell Host and Microbe. 16, 1, p. 94-104 11 p.

The VgrG proteins are "à la carte" delivery systems for bacterial type VI effectors
Hachani, A., Allsopp, L. P., Oduko, Y. & Filloux, A., Jun 20 2014, In: Journal of Biological Chemistry. 289, 25, p. 17872-17884 13 p.

An rhs gene linked to the second type VI secretion cluster is a feature of the *pseudomonas aeruginosa* strain PA14
Jones, C., Hachani, A., Manoli, E. & Filloux, A., Feb 2014, In: Journal of Bacteriology. 196, 4, p. 800-810 11 p.

A method to capture large DNA fragments from genomic DNA

Ball, G., Filloux, A. & Voulhoux, R., 2014, In: Methods in Molecular Biology. 1149, p. 491-500 10 p.

Gene amplification and qRT-PCR

Jones, C. & Filloux, A., 2014, In: Methods in Molecular Biology. 1149, p. 457-468 12 p.

Methods for studying biofilm dispersal in *Pseudomonas aeruginosa*

Barraud, N., Moscoso, J. A., Ghigo, J. M. & Filloux, A., 2014, In: Methods in Molecular Biology. 1149, p. 643-651 9 p.

Preface

Filloux, A. & Ramos, J. L., 2014, In: Methods in Molecular Biology. 1149, p. v

Preface. *Pseudomonas* methods and protocols

Filloux, A. & Ramos, J. L., 2014, In: Methods in Molecular Biology. 1149, p. v

Site-directed mutagenesis and gene deletion using reverse genetics

Muhl, D. & Filloux, A., 2014, In: Methods in Molecular Biology. 1149, p. 521-539 19 p.

The diguanylate cyclase SadC is a central player in Gac/Rsm-mediated biofilm formation in *Pseudomonas aeruginosa*
Moscoso, J. A., Jaeger, T., Valentini, M., Hui, K., Jenal, U. & Filloux, A., 2014, In: Journal of Bacteriology. 196, 23, p. 4081-4088 8 p.

Fit and resistant is a worst case scenario with bacterial pathogens
Filloux, A., Dec 17 2013, In: Proceedings of the National Academy of Sciences of the United States of America. 110, 51, p. 20360-20361 2 p.

The rise of the type VI secretion system

Filloux, A., Dec 3 2013, In: F1000Prime Reports. 5, 52.

Subinhibitory concentration of kanamycin induces the *Pseudomonas aeruginosa* type VI secretion system
Jones, C., Allsopp, L., Horlick, J., Kulasekara, H. & Filloux, A., Nov 8 2013, In: PLoS One. 8, 11, e81132.

Erratum: The p110 δ isoform of the kinase PI(3)K controls the subcellular compartmentalization of TLR4 signaling and protects from endotoxic shock (Nature Immunology (2012) 13 (1045-1054))

Aksoy, E., Taboubi, S., Torres, D., Delbauve, S., Hachani, A., Whitehead, M. A., Pearce, W. P., Berenjeno-Martin, I., Nock, G., Filloux, A., Beyaert, R., Flamand, V. & Vanhaesebroeck, B., Aug 2013, In: Nature Immunology. 14, 8, p. 877 1 p.

The pathogenicity island encoded PvrSR/RcsCB regulatory network controls biofilm formation and dispersal in *Pseudomonas aeruginosa* PA14

Mikkelsen, H., Hui, K., Barraud, N. & Filloux, A., Aug 2013, In: *Molecular Microbiology*. 89, 3, p. 450-463 14 p.

The HsiB1C1 (TssB-TssC) complex of the *Pseudomonas aeruginosa* type VI secretion system forms a bacteriophage tail sheathlike structure

Lossi, N. S., Manoli, E., Förster, A., Dajani, R., Pape, T., Freemont, P. & Filloux, A., Mar 15 2013, In: *Journal of Biological Chemistry*. 288, 11, p. 7536-7548 13 p.

Editorial

Filloux, A., Mar 2013, In: *FEMS Microbiology Reviews*. 37, 2, p. 111 1 p.

Microbiology. Editorial.

Filloux, A., Mar 2013, In: *FEMS Microbiology Reviews*. 37, 2, p. 111 1 p.

A visual assay to monitor T6SS-mediated bacterial competition.

Hachani, A., Lossi, N. S. & Filloux, A., 2013, In: *Unknown Journal*. 73, p. e50103

A weapon for bacterial warfare

Filloux, A., 2013, In: *Nature*. 500, 7462, p. 284-285 2 p.

The p110 δ isoform of the kinase PI(3)K controls the subcellular compartmentalization of TLR4 signaling and protects from endotoxin shock

Aksoy, E., Taboubi, S., Torres, D., Delbauve, S., Hachani, A., Whitehead, M. A., Pearce, W. P., Berenjeno-Martin, I., Nock, G., Filloux, A., Beyaert, R., Flamand, V. & Vanhaesebroeck, B., Nov 2012, In: *Nature Immunology*. 13, 11, p. 1045-1054 10 p.

The archetype *Pseudomonas aeruginosa* proteins TssB and TagJ form a novel subcomplex in the bacterial type VI secretion system

Lossi, N. S., Manoli, E., Simpson, P., Jones, C., Hui, K., Dajani, R., Coulthurst, S. J., Freemont, P. & Filloux, A., Oct 2012, In: *Molecular Microbiology*. 86, 2, p. 437-456 20 p.

The second type VI secretion system of *Pseudomonas aeruginosa* strain PAO1 is regulated by quorum sensing and fur and modulates internalization in epithelial cells

Sana, T. G., Hachani, A., Bucior, I., Soscia, C., Garvis, S., Termine, E., Engel, J., Filloux, A. & Bleves, S., Aug 3 2012, In: *Journal of Biological Chemistry*. 287, 32, p. 27095-27105 11 p.

Type II-dependent secretion of a *Pseudomonas aeruginosa* DING protein

Ball, G., Viarre, V., Garvis, S., Voulhoux, R. & Filloux, A., Jul 2012, In: *Research in Microbiology*. 163, 6-7, p. 457-469 13 p.

The *Pseudomonas aeruginosa* sensor RetS switches Type III and Type VI secretion via c-di-GMP signalling

Moscato, J. A., Mikkelsen, H., Heeb, S., Williams, P. & Filloux, A., Apr 2012, In: *Environmental Microbiology*. 14, 4, p. 1088-1089 2 p.

On the path to uncover the bacterial type II secretion system

Douzi, B., Filloux, A. & Voulhoux, R., 2012, In: *Philosophical Transactions of the Royal Society B: Biological Sciences*. 367, 1592, p. 1059-1072 14 p.

The *Pseudomonas aeruginosa* reference strain PA14 displays increased virulence due to a mutation in *ladS*

Mikkelsen, H., McMullan, R. & Filloux, A., Dec 22 2011, In: *PLoS One*. 6, 12, e29113.

Structure-function analysis of HsiF, a gp25-like component of the type VI secretion system, in *Pseudomonas aeruginosa*
Lossi, N. S., Dajani, R., Freemont, P. & Filloux, A., Dec 2011, In: *Microbiology*. 157, 12, p. 3292-3305 14 p.

The *Pseudomonas aeruginosa* sensor RetS switches Type III and Type VI secretion via c-di-GMP signalling
Moscato, J. A., Mikkelsen, H., Heeb, S., Williams, P. & Filloux, A., Dec 2011, In: *Environmental Microbiology*. 13, 12, p. 3128-3138 11 p.

The cyst-dividing bacterium *Ramlibacter tataouinensis* TTB310 genome reveals a well-stocked toolbox for adaptation to a desert environment
de Luca, G., Barakat, M., Ortet, P., Fochesato, S., Jourlin-Castelli, C., Ansaldi, M., Py, B., Fichant, G., Coutinho, P. M., Voulhoux, R., Bastien, O., Maréchal, E., Henrissat, B., Quentin, Y., Noirot, P., Filloux, A., Méjean, V., DuBow, M. S., Barras, F. & Barbe, V. & 5 others, Weissenbach, J., Mihalcescu, I., Verméglio, A., Achouak, W. & Heulin, T., Sept 1 2011, In: *PLoS One*. 6, 9, e23784.

The assembly mode of the pseudopilus: A hallmark to distinguish a novel secretion system subtype
Durand, E., Alphonse, S., Brochier-Armanet, C., Ball, G., Douzi, B., Filloux, A., Bernard, C. & Voulhoux, R., Jul 8 2011, In: *Journal of Biological Chemistry*. 286, 27, p. 24407-24416 10 p.

Key two-component regulatory systems that control biofilm formation in *Pseudomonas aeruginosa*
Mikkelsen, H., Sivaneson, M. & Filloux, A., Jul 2011, In: *Environmental Microbiology*. 13, 7, p. 1666-1681 16 p.

The bacterial type VI secretion system: On the bacteriophage trail
Filloux, A., May 2011, In: *Microbiology Today*. 38, 2, p. 96-101 6 p.

Type VI secretion system in *Pseudomonas aeruginosa*: Secretion and multimerization of VgrG proteins
Hachani, A., Lossi, N. S., Hamilton, A., Jones, C., Bleves, S., Albesa-Jové, D. & Filloux, A., Apr 8 2011, In: *Journal of Biological Chemistry*. 286, 14, p. 12317-12327 11 p.

The PprA-PprB two-component system activates CupE, the first non-archetypal *Pseudomonas aeruginosa* chaperone-usher pathway system assembling fimbriae
Giraud, C., Bernard, C. S., Calderon, V., Yang, L., Filloux, A., Molin, S., Fichant, G., Bordi, C. & De Bentzmann, S., Mar 2011, In: *Environmental Microbiology*. 13, 3, p. 666-683 18 p.

Two-component regulatory systems in *Pseudomonas aeruginosa*: An intricate network mediating fimbrial and efflux pump gene expression
Sivaneson, M., Mikkelsen, H., Ventre, I., Bordi, C. & Filloux, A., Mar 2011, In: *Molecular Microbiology*. 79, 5, p. 1353-1366 14 p.

Protein secretion systems in *Pseudomonas aeruginosa*: An essay on diversity, evolution, and function
Filloux, A., 2011, In: *Frontiers in Microbiology*. 2, JULY

Structural and functional characterization of *Pseudomonas aeruginosa* CupB chaperones
Cai, X., Wang, R., Filloux, A., Waksman, G. & Meng, G., 2011, In: *PLoS One*. 6, 1, e16583.

Protein secretion systems in *Pseudomonas aeruginosa*: A wealth of pathogenic weapons
Bleves, S., Viarre, V., Salacha, R., Michel, G. P. F., Filloux, A. & Voulhoux, R., Dec 2010, In: *International Journal of Medical Microbiology*. 300, 8, p. 534-543 10 p.

Secretion signal and protein targeting in Bacteria: A biological puzzle
Filloux, A., Aug 2010, In: *Journal of Bacteriology*. 192, 15, p. 3847-3849 3 p.

A variety of bacterial pili involved in horizontal gene transfer
Filloux, A., Jul 2010, In: *Journal of Bacteriology*. 192, 13, p. 3243-3245 3 p.

High-level antibiotic resistance in *Pseudomonas aeruginosa* biofilm: The *ndvB* gene is involved in the production of highly glycerol-phosphorylated $\beta(1\rightarrow3)$ -glucans, which bind aminoglycosides
Sadovskaya, I., Vinogradov, E., Li, J., Hachani, A., Kowalska, K. & Filloux, A., Jul 2010, In: *Glycobiology*. 20, 7, p. 895-904 10 p.

Distinct oligomeric forms of the *Pseudomonas aeruginosa* RetS sensor domain modulate accessibility to the ligand binding site
Vincent, F., Round, A., Reynaud, A., Bordi, C., Filloux, A. & Bourne, Y., Jun 2010, In: *Environmental Microbiology*. 12, 6, p. 1775-1786 12 p.

Regulatory RNAs and the HptB/RetS signalling pathways fine-tune *Pseudomonas aeruginosa* pathogenesis
Bordi, C., Lamy, M. C., Ventre, I., Termine, E., Hachani, A., Fillet, S., Roche, B., Bleves, S., Méjean, V., Lazdunski, A. & Filloux, A., Jun 2010, In: *Molecular Microbiology*. 76, 6, p. 1427-1443 17 p.

The *Pseudomonas aeruginosa* patatin-like protein PlpD is the archetype of a novel Type V secretion system
Salacha, R., Kovačič, F., Brochier-Armanet, C., Wilhelm, S., Tommassen, J., Filloux, A., Voulhoux, R. & Bleves, S., Jun 2010, In: *Environmental Microbiology*. 12, 6, p. 1498-1512 15 p.

Structure of the *Pseudomonas aeruginosa* XcpT pseudopilin, a major component of the type II secretion system
Alphonse, S., Durand, E., Douzi, B., Waegelé, B., Darbon, H., Filloux, A., Voulhoux, R. & Bernard, C., Jan 2010, In: *Journal of Structural Biology*. 169, 1, p. 75-80 6 p.

The C-terminal amphipathic α -helix of *Pseudomonas aeruginosa* PelC outer membrane protein is required for its function
Kowalska, K., Soscia, C., Combe, H., Vasseur, P., Voulhoux, R. & Filloux, A., Jan 2010, In: *Biochimie*. 92, 1, p. 33-40 8 p.

Chemical analysis of cellular and extracellular carbohydrates of a biofilm-forming strain *Pseudomonas aeruginosa* PA14
Coulon, C., Vinogradov, E., Filloux, A. & Sadovskaya, I., 2010, In: *PLoS One*. 5, 12, e14220.

The XcpV/Gspl pseudopilin has a central role in the assembly of a quaternary complex within the T2SS pseudopilus
Douzi, B., Durand, E., Bernard, C., Alphonse, S., Cambillau, C., Filloux, A., Tegoni, M. & Voulhoux, R., Dec 11 2009, In: *Journal of Biological Chemistry*. 284, 50, p. 34580-34589 10 p.

HxcQ liposecretin is self-piloted to the outer membrane by its N-terminal lipid anchor
Viarre, V., Cascales, E., Ball, G., Michel, G. P. F., Filloux, A. & Voulhoux, R., Dec 4 2009, In: *Journal of Biological Chemistry*. 284, 49, p. 33815-33823 9 p.

Caenorhabditis elegans semi-automated liquid screen reveals a specialized role for the chemotaxis gene *cheB2* in *Pseudomonas aeruginosa* virulence
Garvis, S., Munder, A., Ball, G., De Bentzmann, S., Wiehlmann, L., Ewbank, J. J., Tümmler, B. & Filloux, A., Aug 2009, In: *PLoS Pathogens*. 5, 8, e1000540.

Expression of *pseudomonas aeruginosa* CupD fimbrial genes is antagonistically controlled by RcsB and the EAL-containing PvrR response regulators
Mikkelsen, H., Ball, G., Giraud, C. & Filloux, A., Jun 23 2009, In: *PLoS One*. 4, 6, e6018.

Organization and PprB-dependent control of the *pseudomonas aeruginosa* *tad* locus, involved in Flp Pilus Biology
Bernard, C. S., Bordi, C., Termine, E., Filloux, A. & De Bentzmann, S., Mar 2009, In: *Journal of Bacteriology*. 191, 6, p. 1961-1973 13 p.

The type VI secretion system: A tubular story
Filloux, A., Feb 18 2009, In: *EMBO Journal*. 28, 4, p. 309-310 2 p.

Direct interaction between sensor kinase proteins mediates acute and chronic disease phenotypes in a bacterial pathogen
Goodman, A. L., Merighi, M., Hyodo, M., Ventre, I., Filloux, A. & Lory, S., Jan 15 2009, In: *Genes and Development*. 23, 2, p. 249-259 11 p.

Identification of biofilm-associated cluster (bac) in *Pseudomonas aeruginosa* involved in biofilm formation and virulence
Macé, C., Seyer, D., Chemani, C., Cosette, P., Di-Martino, P., Guery, B., Filloux, A., Fontaine, M., Molle, V., Junter, G. A. & Jouenne, T., Dec 9 2008, In: *PLoS One*. 3, 12, e3897.

The 'P-usher', a novel protein transporter involved in fimbrial assembly and TpsA secretion
Ruer, S., Ball, G., Filloux, A. & De Bentzmann, S., Oct 22 2008, In: *EMBO Journal*. 27, 20, p. 2669-2680 12 p.

Emergence of secretion-defective sublines of *Pseudomonas aeruginosa* PAO1 resulting from spontaneous mutations in the *vfr* global regulatory gene
Fox, Á., Haas, D., Reimann, C., Heeb, S., Filloux, A. & Voulhoux, R., Mar 2008, In: *Applied and Environmental Microbiology*. 74, 6, p. 1902-1908 7 p.

The bacterial type VI secretion machine: Yet another player for protein transport across membranes
Filloux, A., Hachani, A. & Bleves, S., 2008, In: *Microbiology*. 154, 6, p. 1570-1583 14 p.

EuroPathoGenomics Réseau européen de génomique fonctionnelle des bactéries pathogènes
Buchrieser, C., Filloux, A. & Kunst, F., Dec 2007, In: *Biofutur*. 283, p. 52-56 5 p.

PelC is a *Pseudomonas aeruginosa* outer membrane lipoprotein of the OMA family of proteins involved in exopolysaccharide transport
Vasseur, P., Soscia, C., Voulhoux, R. & Filloux, A., Aug 2007, In: *Biochimie*. 89, 8, p. 903-915 13 p.

Assembly of fimbrial structures in *Pseudomonas aeruginosa*: Functionality and specificity of chaperone-usher machineries
Ruer, S., Stender, S., Filloux, A. & De Bentzmann, S., May 2007, In: *Journal of Bacteriology*. 189, 9, p. 3547-3555 9 p.

Expression level of heterologous *tat* genes is crucial for in vivo reconstitution of a functional Tat translocase in *Escherichia coli*
Xiong, Y., Santini, C. L., Kan, B., Xu, J., Filloux, A. & Wu, L. F., May 2007, In: *Biochimie*. 89, 5, p. 676-685 10 p.

Interaction domains in the *Pseudomonas aeruginosa* type II secretory apparatus component XcpS (GspF)
Arts, J., de Groot, A., Ball, G., Durand, E., El Khattabi, M., Filloux, A. F., Tommassen, J. & Koster, M. C., May 2007, In: *Microbiology*. 153, 5, p. 1582-1592 11 p.

XphA/XqhA, a novel GspCD subunit for type II secretion in *Pseudomonas aeruginosa*
Michel, G. P. F., Durand, E. & Filloux, A., May 2007, In: *Journal of Bacteriology*. 189, 10, p. 3776-3783 8 p.

Cross talk between type III secretion and flagellar assembly systems in *Pseudomonas aeruginosa*
Soscia, C., Hachani, A., Bernadac, A., Filloux, A. & Bleves, S., Apr 2007, In: *Journal of Bacteriology*. 189, 8, p. 3124-3132 9 p.

Export of the pseudopilin XcpT of the *Pseudomonas aeruginosa* type II secretion system via the signal recognition particle-Sec pathway
Arts, J., Van Boxtel, R., Filloux, A., Tommassen, J. & Koster, M., Mar 2007, In: *Journal of Bacteriology*. 189, 5, p. 2069-2076 8 p.

Modulation of bacterial lifestyles via two-component regulatory networks
Ventre, I., Goodman, A. L., Filloux, A. & Lory, S., 2007, *A Model System in Biology*. Springer Netherlands, Vol. 5. p. 311-340 30 p.

Preface

Ramos, J. L. & Filloux, A., 2007, *A Model System in Biology*. Springer Netherlands, Vol. 5. p. v-vii

Pseudomonas

Ramos, J. L. & Filloux, A., 2007, *Volume 1: Genomics, Life Style and Molecular Architecture. Volume 2: Virulence and Gene Regulation. Volume 3: Biosynthesis of Macromolecules and Molecular Metabolism. Volume 4: Molecular Biology of Emerging Issues. Volume 5: A Model System in Biology*. Springer Netherlands, Vol. 1-5. p. 1-463 463 p.

Des senseurs pour contrôler le style de vie bactérien Le choix entre infection chronique ou aiguë

Filloux, A. & Ventre, I., Oct 2006, In: *Medecine/Sciences*. 22, 10, p. 811-814 4 p.

FppA, a novel *Pseudomonas aeruginosa* prepilin peptidase involved in assembly of type IVb pili

De Bentzmann, S., Aurouze, M., Ball, G. & Filloux, A., Jul 2006, In: *Journal of Bacteriology*. 188, 13, p. 4851-4860 10 p.

Pyoverdine-mediated iron uptake in *Pseudomonas aeruginosa*: The Tat system is required for PvdN but not for FpvA transport

Voulhoux, R., Filloux, A. & Schalk, I. J., May 2006, In: *Journal of Bacteriology*. 188, 9, p. 3317-3323 7 p.

Multiple sensors control reciprocal expression of *Pseudomonas aeruginosa* regulatory RNA and virulence genes

Ventre, I., Goodman, A. L., Vallet-Gely, I., Vasseur, P., Soscia, C., Molin, S., Bleves, S., Lazdunski, A., Lory, S. & Filloux, A., Jan 3 2006, In: *Proceedings of the National Academy of Sciences of the United States of America*. 103, 1, p. 171-176 6 p.

Preface

Ramos, J. L. & Filloux, A., 2006, *Molecular Microbiology, Infection and Biodiversity*. Springer Netherlands, Vol. 6. p. v-vi

Pseudomonas

Ramos, J. L. & Filloux, A., 2006, *Volume 6: Molecular Microbiology, Infection and Biodiversity*. Springer Netherlands, Vol. 6. p. 1-287 287 p.

Subcomplexes from the Xcp secretion system of *Pseudomonas aeruginosa*

Robert, V., Filloux, A. & Michel, G. P. F., Nov 1 2005, In: *FEMS Microbiology Letters*. 252, 1, p. 43-50 8 p.

XcpX controls biogenesis of the *Pseudomonas aeruginosa* XcpT-containing pseudopilus

Durand, É., Michel, G., Voulhoux, R., Kürner, J., Bernadac, A. & Filloux, A., Sept 9 2005, In: *Journal of Biological Chemistry*. 280, 36, p. 31378-31389 12 p.

Role of XcpP in the functionality of the *Pseudomonas aeruginosa* secretion

Robert, V., Filloux, A. & Michel, G. P. F., Sept 2005, In: *Research in Microbiology*. 156, 8, p. 880-886 7 p.

Quorum sensing negatively controls type III secretion regulon expression in *Pseudomonas aeruginosa* PAO1

Bleves, S., Soscia, C., Nogueira-Orlandi, P., Lazdunski, A. & Filloux, A., Jun 2005, In: *Journal of Bacteriology*. 187, 11, p. 3898-3902 5 p.

The *pel* genes of the *Pseudomonas aeruginosa* PAK strain are involved at early and late stages of biofilm formation

Vasseur, P., Vallet-Gely, I., Soscia, C., Genin, S. & Filloux, A., Mar 2005, In: *Microbiology*. 151, 3, p. 985-997 13 p.

A novel two-component system controls the expression of *Pseudomonas aeruginosa* fimbrial cup genes

Kulasekara, H. D., Ventre, I., Kulasekara, B. R., Lazdunski, A., Filloux, A. & Lory, S., Jan 2005, In: *Molecular Microbiology*. 55, 2, p. 368-380 13 p.

The underlying mechanisms of type II protein secretion

Filloux, A., Nov 11 2004, In: *Biochimica et Biophysica Acta - Molecular Cell Research*. 1694, 1-3 SPEC.ISS., p. 163-179 17 p.

A novel extracellular phospholipase C of *Pseudomonas aeruginosa* is required for phospholipid chemotaxis
Barker, A. P., Vasil, A. I., Filloux, A., Ball, G., Wilderman, P. J. & Vasil, M. L., Aug 2004, In: *Molecular Microbiology*. 53, 4, p. 1089-1098 10 p.

Biofilm Formation in *Pseudomonas aeruginosa*: Fimbrial cup Gene Clusters Are Controlled by the Transcriptional Regulator MvaT
Vallet, I., Diggle, S. P., Stacey, R. E., Cámara, M., Ventre, I., Lory, S., Lazdunski, A., Williams, P. & Filloux, A., May 2004, In: *Journal of Bacteriology*. 186, 9, p. 2880-2890 11 p.

Type II protein secretion in *Pseudomonas aeruginosa*: The pseudopilus is a multifibrillar and adhesive structure
Durand, É., Bernadac, A., Ball, G., Lazdunski, A., Sturgis, J. N. & Filloux, A., May 2003, In: *Journal of Bacteriology*. 185, 9, p. 2749-2758 10 p.

Virulence factors of the human opportunistic pathogen *Serratia marcescens* identified by in vivo screening
Kurz, C. L., Chauvet, S., Andrès, E., Aurouze, M., Vallet, I., Michel, G. P. F., Uh, M., Celli, J., Filloux, A., De Bentzmann, S., Steinmetz, I., Hoffmann, J. A., Finlay, B. B., Gorvel, J. P., Ferrandon, D. & Ewbank, J. J., Apr 1 2003, In: *EMBO Journal*. 22, 7, p. 1451-1460 10 p.

Biofilm: Mise en place et organisation d'une communauté bactérienne
Filloux, A. & Vallet, I., Jan 1 2003, In: *Medecine/Sciences*. 19, 1, p. 77-83 7 p.

Identification of XcpP domains that confer functionality and specificity to the *Pseudomonas aeruginosa* type II secretion apparatus.
Gérard-Vincent, M., Robert, V., Ball, G., Bleves, S., Michel, G. P. F., Lazdunski, A. & Filloux, A., Jun 2002, In: *Molecular Microbiology*. 44, 6, p. 1651-1665 15 p.

Use of colicin-based genetic tools for studying bacterial protein transport
Filloux, A., Voulhoux, R., Ize, B., Gérard, F., Ball, G. & Wu, L. F., May 2002, In: *Biochimie*. 84, 5-6, p. 489-497 9 p.

A novel type II secretion system in *Pseudomonas aeruginosa*
Ball, G., Durand, É., Lazdunski, A. & Filloux, A., 2002, In: *Molecular Microbiology*. 43, 2, p. 475-485 11 p.

In vivo dissection of the Tat translocation pathway in *Escherichia coli*
Ize, B., Gérard, F., Zhang, M., Chanal, A., Voulhoux, R., Palmer, T., Filloux, A. & Wu, L. F., 2002, In: *Journal of Molecular Biology*. 317, 3, p. 327-335 9 p.

Type III secretion-mediated killing of endothelial cells by *Pseudomonas aeruginosa*
Saliba, A. M., Filloux, A., Ball, G., Silva, A. S. V., Assis, M. C. & Plotkowski, M. C., 2002, In: *Microbial Pathogenesis*. 33, 4, p. 153-166 14 p.

Involvement of the twin-arginine translocation system in protein secretion via the type II pathway
Voulhoux, R., Ball, G., Ize, B., Vasil, M. L., Lazdunski, A., Wu, L. F. & Filloux, A., Dec 3 2001, In: *EMBO Journal*. 20, 23, p. 6735-6741 7 p.

The chaperone/usher pathways of *Pseudomonas aeruginosa*: Identification of fimbrial gene clusters (cup) and their involvement in biofilm formation
Vallet, I., Olson, J. W., Lory, S., Lazdunski, A. & Filloux, A., Jun 5 2001, In: *Proceedings of the National Academy of Sciences of the United States of America*. 98, 12, p. 6911-6916 6 p.

The AprX protein of *Pseudomonas aeruginosa*: A new substrate for the Apr type I secretion system
Duong, F., Bonnet, E., Géli, V., Lazdunski, A., Murgier, M. & Filloux, A., Jan 10 2001, In: *Gene*. 262, 1-2, p. 147-153 7 p.

Colicin A hybrids: A genetic tool for selection of type II secretion-proficient *Pseudomonas* strains
Voulhoux, R., Lazdunski, A. & Filloux, A., 2001, In: EMBO Reports. 2, 1, p. 49-54 6 p.

Exchange of Xcp (Gsp) secretion machineries between *Pseudomonas aeruginosa* and *Pseudomonas alcaligenes*:
Species specificity unrelated to substrate recognition
De Groot, A., Koster, M., Gérard-Vincent, M., Gerritse, G., Lazdunski, A., Tommassen, J. & Filloux, A., 2001, In: Journal of Bacteriology. 183, 3, p. 959-967 9 p.

Influence of deletions within domain II of exotoxin A on its extracellular secretion from *Pseudomonas aeruginosa*
Voulhoux, R., Taupiac, M. P., Czjzek, M., Beaumelle, B. & Filloux, A., Jul 2000, In: Journal of Bacteriology. 182, 14, p. 4051-4058 8 p.

***Pseudomonas aeruginosa* virulence factors delay airway epithelial wound repair by altering the actin cytoskeleton and inducing overactivation of epithelial matrix metalloproteinase-2**

De Bentzmann, S., Polette, M., Zahm, J. M., Hinrasky, J., Kileztky, C., Bajolet, O., Klossek, J. M., Filloux, A., Lazdunski, A. & Puchelle, E., Feb 2000, In: Laboratory Investigation. 80, 2, p. 209-219 11 p.

Structure-function analysis of XcpP, a component involved in general secretory pathway-dependent protein secretion in *Pseudomonas aeruginosa*
Bleves, S., Gérard-Vincent, M., Lazdunski, A. & Filloux, A., Jul 1999, In: Journal of Bacteriology. 181, 13, p. 4012-4019 8 p.

Molecular organization of the xcp gene cluster in *Pseudomonas putida*: Absence of an xcpX (gspK) homologue
De Groot, A., Gerritse, G., Tommassen, J., Lazdunski, A. & Filloux, A., Jan 8 1999, In: Gene. 226, 1, p. 35-40 6 p.

GSP-dependent protein secretion in Gram-negative bacteria: The Xcp system of *Pseudomonas aeruginosa*
Filloux, A., Michel, G. & Bally, M., Sept 1998, In: FEMS Microbiology Reviews. 22, 3, p. 177-198 22 p.

6.11 A systematic approach to the study of protein secretion in gram-negative bacteria
Filloux, A. & Hardie, K. R., 1998, In: Methods in Microbiology. 27, C, p. 301-318 18 p.

Mutual stabilization of the XcpZ and XcpY components of the secretory apparatus in *Pseudomonas aeruginosa*
Michel, G., Bleves, S., Ball, G., Lazdunski, A. & Filloux, A., 1998, In: Microbiology. 144, 12, p. 3379-3386 8 p.

The secretion apparatus of *Pseudomonas aeruginosa*: Identification of a fifth pseudopilin, XcpX (GspK family)
Bleves, S., Voulhoux, R., Michel, G., Lazdunski, A., Tommassen, J. & Filloux, A., 1998, In: Molecular Microbiology. 27, 1, p. 31-40 10 p.

Characterization of type II protein secretion (xcp) genes in the plant growth-stimulating *Pseudomonas putida*, strain WCS358
De Groot, A., Krijger, J. J., Filloux, A. & Tommassen, J., 1996, In: Molecular and General Genetics. 250, 4, p. 491-504 14 p.

Membrane topology of three Xcp proteins involved in exoprotein transport by *Pseudomonas aeruginosa*
Bleves, S., Lazdunski, A. & Filloux, A., 1996, In: Journal of Bacteriology. 178, 14, p. 4297-4300 4 p.

Role of the propeptide in folding and secretion of elastase of *Pseudomonas aeruginosa*
Braun, P., Tommassen, J. & Filloux, A., 1996, In: Molecular Microbiology. 19, 2, p. 297-306 10 p.

Characterization of type IV pilus genes in plant growth-promoting *Pseudomonas putida* WCS358
De Groot, A., Heijnen, I., De Cock, H., Filloux, A. & Tommassen, J., 1994, In: Journal of Bacteriology. 176, 3, p. 642-650 9 p.

Xcp-mediated protein secretion in *Pseudomonas aeruginosa*: identification of two additional genes and evidence for regulation of xcp gene expression

Akrim, M., Bally, M., Ball, G., Tommassen, J., Teerink, H., Filloux, A. & Lazdunski, A., Oct 1993, In: *Molecular Microbiology*. 10, 2, p. 431-443 13 p.

Protein secretion in *Pseudomonas aeruginosa*

Tommassen, J., Filloux, A., Bally, M., Murgier, M. & Lazdunski, A., Sept 1992, In: *FEMS Microbiology Letters*. 103, 1, p. 73-90 18 p.

Protein secretion in *Pseudomonas aeruginosa*: characterization of seven xcp genes and processing of secretory apparatus components by prepilin peptidase

Bally, M., Filloux, A., Akrim, M., Ball, G., Lazdunski, A. & Tommassen, J., Sept 1992, In: *Molecular Microbiology*. 6, 18, p. 2745 1 p.

Protein secretion in *Pseudomonas aeruginosa*: characterization of seven xcp genes and processing of secretory apparatus components by prepilin peptidase

Bally, M., Filloux, A., Akrim, M., Ball, G., Lazdunski, A. & Tommassen, J., May 1992, In: *Molecular Microbiology*. 6, 9, p. 1121-1131 11 p.

Conservation of xcp genes, involved in the two-step protein secretion process, in different *Pseudomonas* species and other gram-negative bacteria

de Groot, A., Filloux, A. & Tommassen, J., Oct 1991, In: *Molecular Genetics and Genomics*. 229, 2, p. 278-284 7 p.

Cloning of the *Pseudomonas aeruginosa* alkaline protease gene and secretion of the protease into the medium by *Escherichia coli*

Guzzo, J., Murgier, M., Filloux, A. & Lazdunski, A., 1990, In: *Journal of Bacteriology*. 172, 2, p. 942-948 7 p.

Protein secretion in Gram-negative bacteria: Transport across the outer membrane involves common mechanisms in different bacteria

Filloux, A., Bally, M., Ball, G., Akrim, M., Tommassen, J. & Lazdunski, A., 1990, In: *EMBO Journal*. 9, 13, p. 4323-4329 7 p.

Secretion of extracellular proteins by *Pseudomonas aeruginosa*

Lazdunski, A., Guzzo, J., Filloux, A., Bally, M. & Murgier, M., 1990, In: *Biochimie*. 72, 2-3, p. 147-156 10 p.

Cloning of xcp genes located at the 55 min region of the chromosome and involved in protein secretion in *Pseudomonas aeruginosa*

Filloux, A., Bally, M., Murgier, M., Wretling, B. & Lazdunski, A., Feb 1989, In: *Molecular Microbiology*. 3, 2, p. 261-265 5 p.

Phosphate regulation in *Pseudomonas aeruginosa*: Cloning of the alkaline phosphatase gene and identification of *phoB*- and *phoR*-like genes

Filloux, A., Bally, M., Soscia, C., Murgier, M. & Lazdunski, A., Jun 1988, In: *Molecular Genetics and Genomics*. 212, 3, p. 510-513 4 p.

Characterization of two *Pseudomonas aeruginosa* mutants with defective secretion of extracellular proteins and comparison with other mutants

Filloux, A., Murgier, M., Wretling, B. & Lazdunski, A., Feb 1987, In: *FEMS Microbiology Letters*. 40, 2-3, p. 159-163 5 p.

Cloning and expression of a *Bacillus licheniformis* α -amylase gene in *Pseudomonas aeruginosa*

Filloux, A., Joyet, P., Murgier, M. & Lazdunski, A., 1985, In: *FEMS Microbiology Letters*. 30, 1-2, p. 203-207 5 p.

Press/Media

Bacterial warfare provides new antibiotic target

Laura Nolan & Alain Ange Marie Filloux

8/19/21

4 items of Media coverage

Report Summarizes Pseudomonas aeruginosa Study Findings from Imperial College London (Effectiveness of Pseudomonas Aeruginosa Type Vi Secretion System Relies On Toxin Potency and Type Iv Pili-dependent Interaction)

Alain Ange Marie Filloux

7/5/23

1 item of Media coverage

Researchers from Imperial College London Detail New Studies and Findings in the Area of Pseudomonas (The Dual Ggdef/eal Domain Enzyme Pa0285 Is a pseudomonas species Housekeeping Phosphodiesterase Regulating Early Attachment and Biofil

Alain Ange Marie Filloux

7/16/24

1 item of Media coverage

Awards

Medical Research Council award

Alain Ange Marie Filloux (Col) & Morton, R. (Col)

Medical Research Council

10/28/19 → 4/3/23

Projects

A bacterial c-di-GMP responsive enzyme modulates LPS structure and triggers immune evasion

Alain Ange Marie Filloux (PI)

Biotechnology and Biological Sciences Research Council

1/1/18 → 12/31/20

Bacterial competition in planta: The Type 6 Secretion System (T6SS) paradigm

Alain Ange Marie Filloux (PI)

Biotechnology and Biological Sciences Research Council

4/1/15 → 3/31/17

Enhancing the cryo-electron microscopy capacity at Imperial College London for single particle and tomographic studies.

Zhang, X. X. (PI), Alain Ange Marie Filloux (CoPI), Holden, D. D. (CoPI), Hohenester, E. E. (CoPI), van Heel, M. (CoPI), Freemont, P. S. (CoPI) & Iwata, S. S. (CoPI)

Wellcome Trust

6/3/13 → 6/2/14

Linkage - International award

Kjelleberg, S. (PI), Barraud, N. (CoPI) & Alain Ange Marie Filloux (CoPI)

Australian Research Council

1/1/09 → 12/31/09

Linking c-di-GMP signalling and the Gac/Rsm signal transduction pathway

Alain Ange Marie Filloux (PI)

Biotechnology and Biological Sciences Research Council

3/31/14 → 3/30/17

Medical Research Council award

Alain Ange Marie Filloux (Col) & Morton, R. (Col)

Medical Research Council

10/28/19 → 4/3/23

Pseudomonas aeruginosa infection: analysis of antigenic proteins of the virulence-associated type VI secretion system

Alain Ange Marie Filloux (PI)

Medical Research Council
11/3/08 → 2/29/12

Signalling pathway controlling cupD fimbrial genes expression and role in Pseudomonas aeruginosa pathogenesis
Alain Ange Marie Filloux (PI)
Biotechnology and Biological Sciences Research Council
11/2/08 → 11/1/11

Structure and function of the Pseudomonas aeruginosa type VI secretion system: On the bacteriophage trail
Alain Ange Marie Filloux (PI) & Freemont, P. S. (CoPI)
Medical Research Council
1/1/13 → 3/31/18

The fate of VgrG effector proteins in the type VI secretion process: a key issue in bacteria-host relationship.
Alain Ange Marie Filloux (PI)
Wellcome Trust
9/1/10 → 12/31/13

The P-Usher: A mix and match secretion machine for the assembly of bacterial cell surface appendages.
Alain Ange Marie Filloux (PI)
Biotechnology and Biological Sciences Research Council
11/3/11 → 1/2/15

The T6SS as a search engine for naturally validated antibacterial targets
Alain Ange Marie Filloux (PI)
Medical Research Council
10/1/19 → 9/30/22

The T6SS toxins are powerful weapons for Pseudomonas' antibacterial strategy
Alain Ange Marie Filloux (PI)
Medical Research Council
5/9/16 → 5/8/19

Type VI secretion in Pseudomonas species: bacterial competition and biocontrol
Alain Ange Marie Filloux (PI) & Buck, M. M. (CoPI)
Biotechnology and Biological Sciences Research Council
3/1/16 → 2/28/19