

# CURRICULAM VITAE

## Personal

### **BENOTMANE Ilies**

**Date of birth:** July 1<sup>st</sup>, 1990

**Place of birth:** Oran

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<b>Publications</b>	<b>Sum of times cited</b>	<b>H-Index</b>
36	1571	20

## Current Position

Since September 2022	Associate professor, Strasbourg University, Strasbourg, France.
Since September 2022	Hospital Practitioner, Nephrology, Dialysis and Transplantation Department, University Hospital of Strasbourg, Strasbourg, France
Since December 2022	Postdoctoral researcher, Virology and transplantation Unit, Immuno-Rhumathologie moléculaire (IRM, U1109) Inserm Laboratory, Strasbourg, France

## Education

2022	PhD degree in Life and health sciences, École doctorale des Sciences de la Vie et de la Santé, Strasbourg University, Strasbourg, France.
	Thesis topic: "management of a chronic viral infection (BK polyomavirus) and an acute viral infection (SARS-cov-2) in a population of kidney transplant recipients". Supervised by Pr Samira Fafi-Kremer.

- 2018 MD degree, Strasbourg University, Strasbourg, France.
- Thesis topic: "Study of the incidence, characteristics, and risk factors for the development of donor-specific HLA antibodies in a large cohort of kidney transplant recipients at the Strasbourg University Hospital Center from 2013 to 2016." Supervised by Pr Sophie Caillard.
- 2018 Diploma of Specialized Studies in Nephrology, Strasbourg University, Strasbourg, France.
- Dissertation topic "Prevention of BK virus infection in kidney transplant recipients by measuring anti-BK virus neutralizing antibodies on the day of transplantation and administering polyvalent immunoglobulins." Supervised by Pr Sophie Caillard.
- 2017 Master of Science degree: Biology and Health Products with a specialization in Host-Graft Relationship research, Franche-Comté, Bourgogne, Paris XI, and Tours Universities, France.
- Dissertation topic "intravenous immunoglobulins for the prevention of BKV infection In kidney transplant recipients according to pre-transplant BKV Neutralizing Antibody Titers: a pilot study". Supervised by Pf Samira Fafi-Kremer, Virology and transplantation unit, Immuno-Rhumathologie moléculaire (IRM, U1109) Inserm, Strasbourg, France. Average score of 16.2/20, grade "Très bien" (equivalent to "Distinction" or "High Distinction"), ranking: 1/22.
- 2017 University Diploma on statistics Centre d'Enseignement de la Statistique Appliquée à la Médecine et à la Biologie Médicale (CESAM). Pierre et Marie Curie University, Paris, France

## Previous positions

- November 2020 - September 2022 Assistant in Nephrology-Dialysis-Transplantation Department in University Hospital of Strasbourg
- November 2018- November 2022 PhD student, Unit: Virology and transplantation Unit, Immuno-Rhumathologie moléculaire (IRM, U1109) Inserm Laboratory, Strasbourg University, Strasbourg, France
- November 2018- November 2020 Assistant in Virology Department in University Hospital of Strasbourg
- November 2013- November 2018 Internship in Nephrology in University Hospital of Strasbourg

## Expertise

2020 to date	Reviewer for JAMA, Lancet Respiratory Medicine, American journal of Transplantation, Kidney International, eclinicalmedicine, Clinical journal of the american society of nephrology, Frontiers in Immunology...
2022 to date	Guest editor special issue Viruses Journal
2021-2022	Member of Treatment/Management/Adjunct therapy group for international guidelines regarding BK polyomavirus in solid organ transplantation with the support of The Transplantation Society
2018-2021	Investigator in BKEVER study: Multicenter Randomized Two-arms Study Evaluating the BK Viral Clearance in Kidney Transplant Recipients With BK Viremia
2022 to date	Investigator in BKANIG: Intravenous Immunoglobulins for Prevention of BKV Infection in Kidney Transplant Recipients According to BKV Genotype-specific Neutralizing Antibody Titers at the Day of Transplantation.

## Teaching activities

2020 to date	Tutorials and lecture instructor of nephrology in medicine faculty, Strasbourg university, Strasbourg
2020 to date	Courses instructor in Master of science, Strasbourg university, Strasbourg
2018-2020	Tutorials and lecture instructor of virology in medicine faculty, Strasbourg university, Strasbourg

## Membership of scientific societies

2023 to date	Co-responsible of the Francophone Society of Transplantation Junior
2022 to date	Member of the Francophone Society of Transplantation
2022 to date	Member of the Francophone Society of Transplantation Junior

## Organization of scientific meetings

2022	Co-organized of francophone Society of Transplantation Junior congress session in Francophone Society of Transplantation. Lyon, France
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# Publications

1. **Benotmane, I** ; Gautier Vargas, G ; Perrin, P; Cognard, N; Olagne, J; Perrin, P; Fafi-Kremer, S; Caillard, S. Antibody Response After a Third Dose of the mrna-1273 SARS-cov-2 Vaccine in Kidney Transplant Recipients With Minimal Serologic Response to 2 Doses. JAMA. 2021 Jul 23;326(11):1063-1065. IF=157.34
2. **Benotmane, I** ; Bruel, T ; Planas, D ; Fafi-Kremer, S ; Schwartz, O ; Caillard, S. A fourth dose of the mrna-1273 SARS-cov-2 vaccine improves serum neutralization against the Delta variant in kidney transplant recipients. Kidney int. May;101(5):1073-1076., 2022.IF=18.998
3. **Benotmane, I** ; Solis, M ; Velay, A ; Cognard, N ; Olagne, J ; Gautier Vargas, G; Perrin, P; Marx, D; Soulier, E; Gallais, F; Moulin, B; Fafi-Kremer, S; Caillard, S. Intravenous immunoglobulin as a preventive strategy against BK virus viremia and BKV-associated nephropathy in kidney transplant recipients-Results from a proof-of-concept study. Am J Transplant. 2021;21(1):329-337. IF=9.369
4. **Benotmane, I** ; Gautier Vargas, G ; Cognard, N; Olagne, J; Heibel, F; Braun-Parvez, L; Martzloff, J; Perrin, P; Moulin, B; Fafi-Kremer, S; Caillard, S. Weak anti-SARS-cov-2 antibody response after the first injection of an mrna COVID-19 vaccine in kidney transplant recipients. Kidney int. 2021 Jun;99(6):1487-1489.IF=18.998
5. **Benotmane, I** ; Gautier Vargas, G ; Cognard, N; Olagne, J; Heibel, F; Braun-Parvez, L; Martzloff, J; Perrin, P; Moulin, B; Fafi-Kremer, S; Caillard, S. Low immunization rates among kidney transplant recipients who received 2 doses of the mrna-1273 SARS-cov-2 vaccine. Kidney int. 2021 Jun;99(6):1498-1500.IF=18.998
6. **Benotmane, I** ; Velay, A ; Vargas, GG ; Olagne, J ; Cognard, N ; Heibel, F Braun-Parvez, L; Martzloff, J ; Psczcolinski, R ; Perrin, P; Moulin, B; Fafi-Kremer, S ; Caillard, S. A rapid decline in the anti-receptor-binding domain of the SARS-cov-2 spike protein igg titer in kidney transplant recipients after tixagevimab-cilgavimab administration. Kidney Int. 2022 Nov;102(5):1188-1190. IF=18.998
7. **Benotmane, I** ; Velay, A ; Gautier-Vargas, G ; Olagne, J ; Thaunat, O ; Fafi-Kremer, S ; Caillard, S. Pre-exposure prophylaxis with 300 mg Evusheld elicits limited neutralizing activity against the Omicron variant. Kidney Int. 2022 Aug;102(2):442-444. IF=18.998
8. **Benotmane, I** ; Risch, S; Doderer-Lang, C; Caillard ,S; Fafi-Kremer, S. Long-term shedding of viable SARS-cov-2 in kidney transplant recipients with COVID-19. Am J Transplant. 2021 Aug;21(8):2871-2875. IF=9.369
9. **Benotmane, I** ; Gautier Vargas, G ; Velay, A ; Wendling, MJ ; Perrin, P ; Fafi-Kremer, S; Caillard, S. Persistence of SARS-cov-2 antibodies in kidney transplant recipients. Am J Transplant. Jun;21(6):2307-2310. IF=9.369
10. **Benotmane, I** ; Gautier Vargas, G ; Gallais, F; Gantner, P; Cognard, N; Olagne, J; Heibel, F; Braun-Parvez, L; Martzloff, J; Perrin, P; Moulin, B; Fafi-Kremer, S; Caillard, S. Strong antibody response after a first dose of a SARS-cov-2 mrna-based vaccine in kidney transplant recipients with a previous history of COVID-19. Am J Transplant. 2021 Nov;21(11):3808-3810. IF=9,369

11. **Benotmane, I** ; Velay, A ; Gautier-Vargas, G ; Olagne, J ; Obrecht, A ; Cognard, N ; Heibel, F ; Braun-Parvez, L ; Keller, N ; Martzloff, J ; Perrin, P ; Pszczolinski, R ; Moulin, B ; Fafi-Kremer, S ; Thauinat, O ; Caillard, S. Breakthrough COVID-19 cases despite prophylaxis with 150 mg of tixagevimab and 150 mg of cilgavimab in kidney transplant recipients. *American journal of Transplantation*. 2022 Nov;22(11):2675-2681. IF=9.369
12. **Benotmane, I** ; Gautier-Vargas, G ; Wendling, MJ ; Perrin, P ; Velay, A ; Bassand, X ; Bedo, D ; Baldacini, C ; Sagnard, M ; Bozman, DF ; Della-Chiesa, M ; Solis, M ; Gallais, F ; Cognard, N ; Olagne, J ; Delagr erie, H ; Gontard, L ; Panaget, B ; Marx, D ; Heibel, F ; Braun-Parvez, L ; Moulin, B ; Fafi-Kremer, S ; Caillard, S. In-depth virological assessment of kidney transplant recipients with COVID-19. *Am J Transplant*. 2020;20(11):3162-3172. IF=8.07
13. **Benotmane, I** ; Solis, M ; Moulin, B ; Fafi-Kremer, S ; Caillard, S. Letter to the Editor concerning "Cytomegalovirus prevention strategies and the risk of BK polyomavirus viremia and nephropathy". *Am J Transplant* 2019. 2019;19(12):3438-3439. IF=7.34
14. **Benotmane, I** ; Perrin, P ; Vargas, GG ; Bassand, X ; Keller, N ; Lavaux, T ; Ohana, M ; Bedo, D ; Baldacini, C ; Sagnard, M ; Bozman, DF ; Della-Chiesa, M ; Solis, M ; Gallais, F ; Cognard, N ; Olagne, J ; Delagr erie, H ; Marx, D ; Heibel, F ; Braun-Parvez, L ; Moulin, B ; Fafi-Kremer, S ; Caillard, S. Biomarkers of Cytokine Release Syndrome Predict Disease Severity and Mortality From COVID-19 in Kidney Transplant Recipients. *Transplantation*. 2021;105(1):158-169. IF=5.385
15. **Benotmane, I** ; Vargas, GG ; Cognard, N ; Olagne, J ; Heibel, F ; Braun-Parvez, L ; Martzloff, J ; Perrin, P ; Pszczolinski, R ; Moulin, B ; Fafi-Kremer, S ; Caillard, S. Prediction of Vaccine Response and Development of a Personalized Anti-SARS-cov-2 Vaccination Strategy in Kidney Transplant Recipients: Results from a Large Single-Center Study. *J Pers Med*. 2022 Jul 5;12(7):1107. IF=3.508
16. Charmetant, X\* ; Espi M\* ; **Benotmane, I\*** ; Barateau, V ; Heibe, F ; Buron, F ; Gautier Vargas, G ; Delafosse, M ; Perrin, P ; Koenig, A ; Cognard, N ; Levi, C ; Gallais, F ; Mani re, L ; Rossolillo, P ; Soulier, E ; Pierre, F ; Anne Ovize, A ; Morelon, E ; Defrance, T ; Fafi-Kremer, S ; Caillard, S ; Thauinat, O. Infection or a third dose of mRNA vaccine elicits neutralizing antibody responses against SARS-cov-2 in kidney transplant recipients. *Sci Transl Med*. Published March 16, 2022. IF=19.319
17. Lersy, F\* ; **Benotmane, I\*** ; Helms, J ; Collange, O ; Schenck, M ; Brisset, J-C ; Chammas, A ; Willaume, T ; Lefebvre, N ; Solis, M ; Hansmann, Y ; Fabacher, T ; Caillard, S ; Mertes, P-M ; Pottecher, J ; Schneider, F ; Meziani, F ; Fafi-Kremer, S ; Kremer, S. Cerebrospinal Fluid Features in Patients With Coronavirus Disease 2019 and Neurological Manifestations: Correlation with Brain Magnetic Resonance Imaging Findings in 58 Patients. *J Infect Dis*. 2021;223(4):600-609. IF=7.759
18. Caillard, S ; **Benotmane, I** ; Gautier Vargas, G ; Perrin, P ; Fafi-Kremer, S. SARS-cov-2 viral dynamics in immunocompromised patients. *Am J Transplant*. 2021;21(4):1667-1669. IF=9.369
19. Caillard, S ; **Benotmane, I** ; Meidinger, C ; Jegou, V ; Ludwiller, S ; Rihon, A ; Desmarquets, A ; Steinmetz, L ; Morvan, M ; Kedjam, K ; Bigot, A ; Roy, D ; Schmitt, D ; Marx, D ; Bassand, X ; Perrin, P ; Gautier-vargas, G ; Cognard, N ; Olagne, J ; Braun, L ; Heibel, F ; Martzloff, J ; Moulin, B ; Kremer, S. SARS-Cov-2 Seroprevalence in a French Kidney Transplant Center Located Within a "High Risk" Zone. *Transplantation* 2021 Oct 1;105(10):2165-2169. IF=5.385
20. Masset, C ; **Benotmane, I** ; Dantal, J ; Garandeau, C ; Gauthier-Vargas, G ; Cantarovich, D ; Meurette, A ; Giral, M ; Caillard, S ; Blancho, G. A fourth SARS-cov-2 mRNA vaccine in strictly

seronegative kidney transplant recipients. A fourth SARS-cov-2 mRNA vaccine in strictly seronegative kidney transplant recipients *Kidney Int.* 2022 Apr;101(4):825-826. IF=18.998

21. Caillard, S ; Thauinat, O ; **Benotmane, I** ; Masset, C ; Blancho, G. Antibody Response to a Fourth Messenger RNA COVID-19 Vaccine Dose in Kidney Transplant Recipients: A Case Series. Published March, 2022. IF= 51.598
22. Caillard, S ; Laugel, E ; **Benotmane, I** ; Fafi Kremer, S. Molecular evolution of the SARS-cov-2 omicron BA.2 variant in kidney transplant recipients with prolonged viral shedding. *Journal of infection.* Published in February 2023. Impact factor=38.6
23. Perrin, P; Bassand, X; **Benotmane, I** ; Bouvier, N. Gross hematuria following SARS-cov-2 vaccination in patients with iga nephropathy. *Kidney int.* 2021 Aug;100(2):466-468. IF=18.998
24. Gautier-Vargas, G ; Baldacini, C ; **Benotmane, I** ; Keller, N ; Perrin, P ; Moulin, B; Caillard, S. Rapid resolution of cytokine release syndrome and favorable clinical course of severe COVID-19 in a kidney transplant recipient treated with tocilizumab. *Kidney Int.* 2020;98(2):508-509. IF=10.612
25. **Benotmane, I** ; Glatz Bihan, S ; Legrand, F ; Gosset, D ; Boulanger, E. Publications of medical thesis defended in Lille school of medicine. *Presse Med.* 2012;41(7-8):e397-403. IF =0.87
26. Velay, A ; Solis, M ; **Benotmane, I** ; Gantner, P ; Soulier, E ; Moulin, B; Caillard, S; Fafi-Kremer, S. Intravenous Immunoglobulin Administration Significantly Increases bkpyv Genotype-Specific Neutralizing Antibody Titers in Kidney Transplant Recipients. *Antimicrob Agents Chemother.* 2019;63(8). IF=4.90
27. Seeliger, B ; Philouze, G ; **Benotmane, I** ; Mutter, D ; Pessaux, P. Is the severe acute respiratory syndrome coronavirus 2 (SARS-cov-2) present intraperitoneally in patients with coronavirus disease 2019 (COVID-19) infection undergoing emergency operations? *Surgery.* 2020;168(2):220-221. IF=3.982
28. Velay, A ; Gallais, F; **Benotmane, I** ; Wendling, MJ ; Danion, F ; Collange, O; De Séze, J; Schmidt-Mutter, C; Schneider, F; Bilbault, F; Meziani, F; Fafi-Kremer, S. Evaluation of the performance of SARS-cov-2 serological tools and their positioning in COVID-19 diagnostic strategies. *Diagn Microbiol Infect Dis.* 2020;98(4):11518. IF=2.803
29. Perrin, P ; Collongues, N ; Baloglu, S ; Bedo, D ; Bassand, X ; Lavaux, T ; Gautier-Vargas, G ; Keller, N; Kremer, S; Fafi-Kremer, S; Moulin, B; **Benotmane, I\***; Caillard, S\*. Cytokine release syndrome-associated encephalopathy in patients with COVID-19. *Eur J Neurol.* 2021;28(1):248-258. IF=6.288
30. Caillard, S ; Chavarot, N ; Francois, H ; Matignon, M ; Greze, C ; Kamar, N; Gatault, P; Thauinat, O; Legris, T; Frimat, L; Westeel, P; Goutaudier, V; Jdidou, M; Snaoudj, R; Colosio, C; Sicard, A; Bertrand, D; Mousson, C; Bamoulid, J; Masset, C; Thierry, A; Couzi, L; Chemouny, J; Duveau, A; Moal, V; Blancho, G; Grimbert, P; Durrbach, A; Moulin, B; Anglicheau, D; Ruch, Y; Kaeuffer, C; **Benotmane, I**; Solis, M; Iemeur, Y; Hazzan, M; Danion, F. Is COVID-19 infection more severe in kidney transplant recipients? *Am J Transplant.* 2021;21(3):1295-1303. IF=9.369
31. Masset, C ; Gautier-Vargas, G ; Cantarovich, D ; Dantal, J ; Delbos, F ; Walencik, A ; Kerleau, C ; Hourmant, M; Garandeau, C; Meurette, A; Giral, M; **Benotmane, I**; Caillard, S; Blancho, G.

Occurrence of de novo Donor Specific Antibodies after Covid-19 in kidney transplant recipients is low despite immunosuppression modulation. KI report. Published February 6, 2022. IF=6.234

32. Solis, M ; Gallais, F ; Garnier-Kepka, S ; Lefebvre, N ; **Benotmane, I** ; Ludes, PO; Castelain, V; Meziani, F; Caillard, S; Collange, O; Fafi-Kremer, S. Combining predictive markers for severe COVID-19: Torquetenovirus DNA load and SARS-cov-2 rnaemia. Journal of clinical virology. Published March 16, 2022. IF=14.481
33. Marx, D; Moulin, B; Fafi-Kremer, S; **Benotmane, I**; Gautier, G; Perrin, P; Caillard, S. First case of COVID-19 in a kidney transplant recipient treated with belatacept. Am J Transplant. 2020;20(7):1944-1946.IF=8.07
34. Cognard, N; Gautier-Vargas, G; Perrin, P ; **Benotmane, I** ; Caillard, S. COVID-19 in a kidney transplant recipient treated with eculizumab for atypical hemolytic uremic syndrome: a case report. J Nephrol. 2021 Aug;34(4):1045-1048 IF=4.393
35. Caillard, S; Cognard, N; Perrin, P ; **Benotmane, I**. Use of tecovirimat for the treatment of mpox infection in a kidney transplant recipient. American journal of Transplantation. Published in February 2023. IF=9.37
36. Osmanodja, B ; Stegbauer, J ; Kantauskaite, M ; Rump, LC ; Heinzl, A ; Reindl-Schwaighofer, R ; Rainer, O ; Benotmane, I ; Caillard, S ; Masset, C ; Kerleau, C ; Blancho, G ; Budde, K ; Grunox, F ; Mikhailov, M ; Schrezenmeier, E ; Ronicke, S. Development and validation of multivariable prediction models of serological response to SARS-cov-2 vaccination in kidney transplant recipients. Frontiers in Immunology. 22 Oct 4;13:997343. IF=8,786.

\*equal contribution

## Main communication in international congress

1. **Benotmane I**, Solis M, Velay A, Cognard N, Olagne J, Gautier-Vargas G, Perrin P, Gallais F, Moulin B, Fafi-Kremer S, Caillard S . Intravenous immunoglobulins prevent bk virus replication in kidney transplant recipients, a pilot study. European Society for Organ Transplantation 2019, Copenhagen, Denmark, Full oral.
2. M. Solis, A. Velay, F. Gallais, **Benotmane I**, N. Dälken, C.Hüber, M.König, S. Fafi-Kremer. Anti-Polyomavirus neutralizing antibody titers in commercial immunoglobulin preparations. European Society for Organ Transplantation 2019, Copenhagen, Denmark, Elevator pitch.
3. **Benotmane I**, Velay A, Solis M, Gantner P, Soulier E, Moulin B, Caillard S, Fafi-Kremer S. Intravenous immunoglobulins for prevention of BK virus infection in kidney transplant recipients according to pre-transplant BK virus neutralizing antibody titers: a pilot study. European Society for Clinical Virology, 2017, Stresa, Italy, Poster (A).
4. **I. Benotmane** , Velay A, Solis M, Gantner P, Soulier E, Moulin B, Fafi-Kremer S, Caillard S. Intravenous Immunoglobulins for prevention of BK virus infection in kidney transplant recipients according to pre-transplant BK virus Neutralizing Antibody Titers: A pilot study. Francophone Society of Transplantation, La Rochelle, France, 2017. Oral communication.
5. **I. Benotmane** , A. Parissiadis, G. Gautier Vargas, N. Cognard, P. Perrin, M. Joly, L. Braun, F. Heibel, C. Gachet, B. Moulin, S. Caillard. Study of the incidence, characteristics and factors

associated with the occurrence of de novo donor-specific anti-HLA antibodies in a large single-center cohort of renal transplant patients. Francophone Society of Transplantation, Toulouse, 2018. Poster.

6. **I. Benotmane** , M. Solis, A. Velay, N. Cognard, J. Olagne, G. Gautier-Vargas, P. Perrin, F. Gallais, B. Moulin, S. Fafi-Kremer, S. Caillard. Efficiency of intravenous immunoglobulins in prevention of bk virus replication in kidney transplant recipients. Francophone Society of Transplantation, Bordeaux, France, 2019. Oral communication.
7. **I. Benotmane**, P. Perrin, G. Gautier-Vargas, X. Bassand, D. Bedo, C. Baldacini , M. Sagnard, B. Moulin, S. Fafi-Kremer, S. Caillard. Prediction of the severity of COVID-19 by biomarkers of cytokine release syndrome in a population of renal transplant recipients. Francophone Society of Nephrology, Dialysis and Transplantation, 2020. Oral communication
8. **I. Benotmane** , G. Gautier-Vargas, N. Cognard, J. Olagne, F. Heibel, L. Braun-Parvez, J. Martzloff, P. Perrin, R. Pszczolinski, B.Moulin, S. Fafi-Kremer, S. Caillard. Predictor's factors of response to anti-SARS-cov-2 vaccine in a cohort of kidney transplant recipients. Francophone Society of Transplantation. Geneva, Switzerland, 2021. Oral communication.
9. **I. Benotmane**, J. Olagne, G. Gautier-Vargas, N. Keller, N. Cognard, F. Heibel, L. Braun-Parvez, J. Martzloff, P. Perrin, R. Pszczolinski, B. Moulin, S. Fafi-Kremer, S. Caillard. Potential benefit of Evusheld used as an early treatment for COVID-19 *associated with immunosuppressive therapy reduction* in kidney transplant recipients: a retrospective monocentric experience. Francophone Society of Transplantation. Lyon, France, 2022. Oral communication