

CV

Enos Bernasconi

Current position(s): Attending physician, Head of (e.g. institute, department, center, clinic),

Viceprimario di medicina

Academic age: 35 year(s) 1 month(s)

Education

Degree	Organisation	Duration
Full professor	Università della Svizzera italiana - USI, CH Facoltà di biomedicina	01.2023 - Present 1 year(s) 8 month(s)
Professeur titulaire	Université de Genève - GE, CH Faculty of medicine, Department of Internal Medicine	03.2012 - Present 12 year(s) 6 month(s)
Board certification in infectious diseases	FMH, CH FMH	04.1999 - Present 25 year(s) 5 month(s)
Board certification in internal medicine	FMH, CH FMH	02.1994 - Present 30 year(s) 7 month(s)
MD: Medical Doctor	Universität Zürich - ZH, CH Faculty of medicine	01.1991 - Present 33 year(s) 8 month(s)
Professore titolare	Università della Svizzera italiana - USI, CH Facoltà di biomedicina	09.2018 - 12.2022 4 year(s) 4 month(s)
Chargé de cours	Université de Genève - GE, CH Faculty of medicine, Department of Internal Medicine	10.2010 - 03.2012 1 year(s) 6 month(s)
Privat-Docent (PD)	Université de Genève - GE, CH	06.2008 - 10.2010 2 year(s) 5 month(s)

	Faculty of medicine, Department of Internal Medicine	
State examination: Medicine licence	Universität Zürich - ZH, CH Faculty of medicine	10.1980 - 09.1987 7 year(s)
1er Vordiplom	ETH Zürich - ETHZ, CH Faculty of chemistry	09.1979 - 07.1980 11 month(s)

Employment

Role	Organisation	Duration
Attending physician	Hôpitaux Universitaires Genève, CH Division des maladies infectieuses	01.2009 - Present 15 year(s) 8 month(s)
Head of (e.g. institute, department, center, clinic)	Ente Ospedaliero Cantonale - EOC, CH Division of infectious diseases, Department of internal medicine	01.2009 - Present 15 year(s) 8 month(s)
Viceprimario di medicina	Ente Ospedaliero Cantonale - EOC, CH Department of internal medicine	01.2009 - Present 15 year(s) 8 month(s)
Head of (e.g. institute, department, center, clinic)	Ente Ospedaliero Cantonale - EOC, CH Division of infectious diseases, Department of medicine	01.1998 - 12.2008 11 year(s)
Chief resident internal medicine, Consultant infectious diseases	Ospedale Regionale Lugano, CH Department of medicine	01.1994 - 12.1996 3 year(s)
Medical resident / Assistant doctor	Universitätsspital Zürich, CH Department of internal medicine	01.1993 - 12.1993 1 year(s)
Medical resident / Assistant doctor	Universitätsspital Zürich, CH Division of Infectious diseases	11.1990 - 12.1992 2 year(s) 2 month(s)
Medical resident / Assistant doctor	Ospedale Regionale Lugano, CH Department of surgery	01.1990 - 10.1990 10 month(s)

Role	Organisation	Duration
Medical resident / Assistant doctor	Ospedale Regionale Lugano, CH Department of internal medicine	01.1988 - 12.1989 2 year(s)
Military Medical Officer	Military, CH Scuola reclute di Airolo	06.1987 - 11.1987 6 month(s)

Major achievements

Achievement 1

Over the last 25 years my major research focus has been HIV infection, with important achievements in the framework of the Swiss HIV Cohort Study (www.shcs.ch). We demonstrated the possibility to abandon primary *Pneumocystis jirovecii* (previously *P. carinii*) in persons with advanced HIV disease and CD4+ counts increase over 200 cells/uL under a potent antiretroviral treatment (ART) for more than 6 months [1]. We contributed to the understanding of lipodystrophy, probably the most stigmatizing adverse event associated with ART. Lipodystrophy was initially attributed to HIV-protease inhibitors, but it was caused by thymidine analogues inhibitors of the HIV reverse transcriptase, i.e. stavudine and zidovudine [2]. Moreover, we described other important adverse events of nucleosides and nucleotides reverse transcriptase inhibitors, like hyperlactatemia and more recently weight gain associated with tenofovir alafenamide [3]. A milestone in the field of HIV was the publication of the “Swiss statement” in 2008. After extensive review of published biological and epidemiological studies, we stated that HIV infected persons under effective ART and undetectable HIV-viremia could not transmit HIV by sexual intercourse. In the framework of the SHCS, we contributed to interventional studies aiming at the micro elimination of hepatitis C in men who have sex with men [4]. We also demonstrated the efficacy and safety of a dual antiretroviral therapy (dolutegravir/emtricitabine) instead of the classic combination of three drugs [5]. In recent years, we were part of the collaborative effort to understand HIV transmission networks by the mean of molecular biology with the principal aim to guide HIV prevention efforts [6]. Moreover, we contributed to studies on the transmission of HIV resistance, and on viral genetic determinants of HIV pathogenesis and immune response [7].

[1] journal-article. Furrer, H., Egger, M., Opravil, M., Bernasconi, E., Hirschel, B., Battegay, M., Telenti, A., Vernazza, P. L., Rickenbach, M., Flepp, M., & Malinverni, R. (1999). Discontinuation of primary prophylaxis against *Pneumocystis carinii* pneumonia in HIV-1-infected adults treated with combination antiretroviral therapy. *Swiss HIV Cohort Study. The New England journal of medicine*, 340(17), 1301–1306. <https://doi.org/10.1056/NEJM199904293401701>. DOI.

[2] journal-article. Bernasconi E, Boubaker K, Junghans C, Flepp M, Furrer HJ, Haensel A, Hirschel B, Boggian K, Chave JP, Opravil M, Weber R, Rickenbach M, Telenti A; Swiss HIV Cohort Study. Abnormalities of body fat distribution in HIV-infected persons treated with antiretroviral drugs: The Swiss HIV Cohort Study. *J Acquir Immune Defic Syndr*. 2002 Sep 1;31(1):50-5. doi: 10.1097/00126334-200209010-00007. PMID: 12352150. DOI.

[3] journal-article. Surial, B., Mugglin, C., Calmy, A., Cavassini, M., Günthard, H. F., Stöckle, M., Bernasconi, E., Schmid, P., Tarr, P. E., Furrer, H., Ledergerber, B., Wandeler, G., Rauch, A., & Swiss HIV Cohort Study (2021). Weight and Metabolic Changes After Switching

- From Tenofovir Disoproxil Fumarate to Tenofovir Alafenamide in People Living With HIV : A Cohort Study. *Annals of internal medicine*, 174(6), 758–767. <https://doi.org/10.7326/M20-4853>. [DOI](#).
- [4] journal-article. Braun, D. L., Hampel, B., Ledergerber, B., Grube, C., Nguyen, H., Künzler-Heule, P., Shah, C., Salazar-Vizcaya, L., Conen, A., Flepp, M., Stöckle, M., Béguelin, C., Schmid, P., Rougemont, M., Delaloye, J., Bernasconi, E., Nicca, D., Böni, J., Rauch, A., Kouyos, R. D., ... Fehr, J. S. (2021). A Treatment-as-Prevention Trial to Eliminate Hepatitis C Among Men Who Have Sex With Men Living With Human Immunodeficiency Virus (HIV) in the Swiss HIV Cohort Study. *Clinical infectious diseases : an official publication of the Infectious Diseases Society of America*, 73(7), e2194–e2202. <https://doi.org/10.1093/cid/ciaa1124>. [DOI](#).
- [5] journal-article. Sculier, D., Wandeler, G., Yerly, S., Marinosci, A., Stoeckle, M., Bernasconi, E., Braun, D. L., Vernazza, P., Cavassini, M., Buzzzi, M., Metzner, K. J., Decosterd, L. A., Günthard, H. F., Schmid, P., Limacher, A., Egger, M., Calmy, A., & Swiss HIV Cohort Study (SHCS) (2020). Efficacy and safety of dolutegravir plus emtricitabine versus standard ART for the maintenance of HIV-1 suppression: 48-week results of the factorial, randomized, non-inferiority SIMPL'HIV trial. *PLoS medicine*, 17(11), e1003421. <https://doi.org/10.1371/journal.pmed.1003421>. [DOI](#).
- [6] journal-article. Bachmann, N., Kusejko, K., Nguyen, H., Chaudron, S. E., Kadelka, C., Turk, T., Böni, J., Perreau, M., Klimkait, T., Yerly, S., Battegay, M., Rauch, A., Ramette, A., Vernazza, P., Bernasconi, E., Cavassini, M., Günthard, H. F., Kouyos, R. D., & Swiss HIV Cohort Study (2021). Phylogenetic Cluster Analysis Identifies Virological and Behavioral Drivers of Human Immunodeficiency Virus Transmission in Men Who Have Sex With Men. *Clinical infectious diseases : an official publication of the Infectious Diseases Society of America*, 72(12), 2175–2183. <https://doi.org/10.1093/cid/ciaa411>. [DOI](#).
- [7] journal-article. Kouyos, R. D., Rusert, P., Kadelka, C., Huber, M., Marzel, A., Ebner, H., Schanz, M., Liechti, T., Friedrich, N., Braun, D. L., Scherrer, A. U., Weber, J., Uhr, T., Baumann, N. S., Leemann, C., Kuster, H., Chave, J. P., Cavassini, M., Bernasconi, E., Hoffmann, M., ... Swiss HIV Cohort Study (2018). Tracing HIV-1 strains that imprint broadly neutralizing antibody responses. *Nature*, 561(7723), 406–410. <https://doi.org/10.1038/s41586-018-0517-0>. [DOI](#).

Achievement 2

A new research focus crystallized after the declaration of the SARS-CoV-2 pandemic by the World Health Organisation in 2020. We contributed to several important studies on COVID-19 prevention, treatment and immune response to mRNA based vaccines [1, 2].

- [1] journal-article. Cippà, P. E., Cugnata, F., Ferrari, P., Brombin, C., Ruinelli, L., Bianchi, G., Beria, N., Schulz, L., Bernasconi, E., Merlani, P., Ceschi, A., & Di Serio, C. (2021). A data-driven approach to identify risk profiles and protective drugs in COVID-19. *Proceedings of the National Academy of Sciences of the United States of America*, 118(1), e2016877118. <https://doi.org/10.1073/pnas.2016877118>. [DOI](#).
- [2] journal-article. Muri, J., Cecchinato, V., Cavalli, A., Shanbhag, A. A., Matkovic, M., Biggiogero, M., Maida, P. A., Moritz, J., Toscano, C., Ghovehoud, E., Furlan, R., Barbic, F., Voza, A., De Nadai, G., Cervia, C., Zurbuchen, Y., Taeschler, P., Murray, L. A., Danelon-Sargentini, G., Moro, S., ... Robbiani, D. F. (2023). Autoantibodies against chemokines post-SARS-CoV-2 infection correlate with disease course. *Nature immunology*, 24(4), 604–611. <https://doi.org/10.1038/s41590-023-01445-w>. [DOI](#).

Achievement 3

In 2022 we published the results of an open-label, parallel-group, cluster randomized superiority trial to assess if overall antibiotic exposure in hospitalized patients could be reduced through a multimodal computerized antibiotic stewardship intervention. Despite of the negative result for the primary endpoint, the switch from intravenous to oral antibiotic treatment was more frequent in the intervention

group, a finding that has been associated with reduced drug costs and length of hospital stay, without compromising efficacy or safety [1].

[1] journal-article. Catho, G., Sauser, J., Coray, V., Da Silva, S., Elzi, L., Harbarth, S., Kaiser, L., Marti, C., Meyer, R., Pagnamenta, F., Portela, J., Prendki, V., Ranzani, A., Centemero, N. S., Stirnemann, J., Valotti, R., Vernaz, N., Suter, B. W., Bernasconi, E., Huttner, B. D., ... COMPASS study group (2022). Impact of interactive computerised decision support for hospital antibiotic use (COMPASS): an open-label, cluster-randomised trial in three Swiss hospitals. *The Lancet. Infectious diseases*, 22(10), 1493–1502. [https://doi.org/10.1016/S1473-3099\(22\)00308-5](https://doi.org/10.1016/S1473-3099(22)00308-5). [DOI](#).
