

Publications by Pablo Bifani
(as of May 2025)

Peer-reviewed original publications:

Megalizzi V, Tanina A, Grosse C, Mirgaux M, Legrand P, Dias Mirandela G, Wohlköning A, **Bifani P**, Wintjens R. Domain architecture of the Mycobacterium tuberculosis MabR (Rv2242), a member of the PucR transcription factor family. *Heliyon*. 2024 Nov 16;10(22):e40494. doi: 10.1016/j.heliyon.2024.e40494. eCollection 2024 Nov 30.

Tan BSY, Mohan L, Watthanaworawit W, Ngamprasertchai T, Nosten FH, Ling C, **Bifani P**. Detection of florfenicol resistance in opportunistic *Acinetobacter* spp. infections in rural Thailand. *Front Microbiol*. 2024 May 3;15:1368813. doi: 10.3389/fmicb.2024.1368813. eCollection 2024.

Christensen P, Cinzah R, Suwanarusk R, Chua ACY, Kaneko O, Kyle DE, Aung HL, Matheson J, **Bifani P**, Rénia L, Cook GM, Snounou G, Russell B. Extended blood stage sensitivity profiles of *Plasmodium cynomolgi* to doxycycline and tafenoquine, as a model for *Plasmodium vivax*. *Antimicrob Agents Chemother*. 2024 May 2;68(5):e0028024. doi: 10.1128/aac.00280-24.

Teo TH, Ayuni NN, Yin M, Liew JH, Chen JQ, Kurepina N, Rajarethnam R, Kreiswirth BN, Chen L, **Bifani P**. Differential mucosal tropism and dissemination of classical and hypervirulent *Klebsiella pneumoniae* infection. *iScience*, 2024 Jan 11;27(2):108875. doi: 10.1016/j.isci.2024.108875.

Krishnananthasivam S, Li H, Bouzeyen R, Shunmuganathan B, Purushotorman K, Liao X, Du F, Friis CGK, Crawshay-Williams F, Boon LH, Xinlei Q, Chan CEZ, Sobota R, Kozma M, Barcelli V, Wang G, Huang H, Floto A, **Bifani P**, Javid B, MacAry PA. An anti-LpqH human monoclonal antibody from an asymptomatic individual mediates protection against *Mycobacterium tuberculosis*. *NPJ Vaccines*, 2023 Aug 25;8(1):127. doi: 10.1038/s41541-023-00710-1.

Ward KE, Christensen P, Racklyeft A, Dhingra SK, Chua ACY, Remmert C, Suwanarusk R, Matheson J, Blackman MJ, Kaneko O, Kyle DE, Lee MCS, Moon RW, Snounou G, Rénia L, Fidock DA, Russell B, **Bifani P**. Integrative Genetic Manipulation of *Plasmodium cynomolgi* Reveals Multidrug Resistance-1 Y976F Associated With Increased In Vitro Susceptibility to Mefloquine. *J Infect Dis*. 2023 May 12;227(10):1121-1126. doi: 10.1093/infdis/jiac469.

Verma NK, Tan SJ, Chen J, Chen H, Ismail MH, Rice SA, **Bifani P**, Hariharan S, Paul VD, Sriram B, Dam LC, Chan CC, Ho P, Goh BC, Chung SJ, Goh KCM, Thong SH, Kwa AL, Ostrowski A, Aung TT, Razali H, Low SWY, Bhattacharyya MS, Gautam HK, Lakshminarayanan R, Sicheritz-Pontén T, Clokie MRJ, Moreira W, van Steensel MAM. inPhocus: Current State and Challenges of Phage Research in Singapore. *Phage* (New Rochelle). 2022 Mar 1;3(1):6-11. doi: 10.1089/phage.2022.29028.nkv.

Christensen P, Racklyeft A, Ward KE, Matheson J, Suwanarusk R, Chua ACY, Kaneko O, Aung HL, Rénia L, Amanzougaghene N, Magneron V, Lemaitre J, Le Grand R, Kyle D, **Bifani P**, Cook GM, Snounou G, Russell B. Improving in vitro continuous

cultivation of *Plasmodium cynomolgi*, a model for *P. vivax*. Parasitol Int. 2022 Aug;89:102589. doi: 10.1016/j.parint.2022.102589.

Maher SP, Vantaux A, Chaumeau V, Chua ACY, Cooper CA, Andolina C, Péneau J, Rouillier M, Rizopoulos Z, Phal S, Piv E, Vong C, Phen S, Chhin C, Tat B, Ouk S, Doeuk B, Kim S, Suriyakan S, Kittiphanakun P, Awuku NA, Conway AJ, Jiang RHY, Russell B, **Bifani P**, Campo B, Nosten F, Witkowski B, Kyle DE. Probing the distinct chemosensitivity of *Plasmodium vivax* liver stage parasites and demonstration of 8-aminoquinoline radical cure activity in vitro. Sci Rep. 2021 Oct 7;11(1):19905. doi: 10.1038/s41598-021-99152-9.

Maher SP, Vantaux A, Chaumeau V, Chua ACY, Cooper CA, Andolina C, Péneau J, Rouillier M, Rizopoulos Z, Phal S, Piv E, Vong C, Phen S, Chhin C, Tat B, Ouk S, Doeuk B, Kim S, Suriyakan S, Kittiphanakun P, Awuku NA, Conway AJ, Jiang RHY, Russell B, **Bifani P**, Campo B, Nosten F, Witkowski B, Kyle DE. Probing the distinct chemosensitivity of *Plasmodium vivax* liver stage parasites and demonstration of 8-aminoquinoline radical cure activity in vitro. Scientific Reports, 2021;11(1):19905. DOI: 10.1038/s41598-021-99152-9. IF: 4.99.

Wintjens R, Bifani AM, **Bifani P**. Impact of glycan cloud on the B-cell epitope prediction of SARS-CoV-2 Spike protein. NPJ Vaccines. 2020;5(1):81. doi: 10.1038/s41541-020-00237-9. IF: 8.46

Wang CG, Li Z, Liu S, Ng CT, Marzuki M, Jeslyn Wong PS, Tan B, Lee A, Hui Lim CF, **Bifani P**, Fang Z, Ching Wong JC, Setoh YX, Yang YY, Mun CH, Fiona Phua SZ, Lim WQ, Lin L, Cook AR, Tanoto H, Ng LC, Singhal A, Leong YW, Loh XJ. N95 respirator decontamination: a study in reusability. Mater Today Adv. 2021 Sep;11:100148. doi: 10.1016/j.mtadv.2021.100148. IF: 8.86.

Dembele L, Gupta DK, Dutta B, Chua ACY, Sze SK, **Bifani P**. Quantitative Proteomic Analysis of Simian Primary Hepatocytes Reveals Candidate Molecular Markers for Permissiveness to Relapsing Malaria *Plasmodium cynomolgi*. Proteomics. 2019 Oct;19(19):e1900021. doi: 10.1002/pmic.201900021. IF: 2.10

Chua ACY, Jessica Jie Ying Ong, Benoit Malleret, Rossarin Suwanarusk, Varakorn Kosaisavee, Anne-Marie Zeeman, Caitlin A. Cooper, Kevin S.W. Tan, Rou Zhang, Bee Huat Tan, Siti Nurdiana Abas, Andy Yip, Anne Elliot, Chester J. Joyner, Jee Sun Cho, Kate Breyer, Szczepan Baran, Amber Lange, Steven P. Maher, François Nosten, Christophe Bodenreider, Bryan K.S. Yeung, Dominique Mazier, Mary R. Galinski, Nathalie Dereuddre-Bosquet, Roger Le Grand, Clemens H.M. Kocken, Laurent Rénia, Dennis E. Kyle, Thierry T. Diagana, Georges Snounou, Bruce Russell, **Pablo Bifani***. Robust continuous in vitro culture of the *Plasmodium cynomolgi* erythrocytic stages. Nature Communication, 2019: 12;10(1):3635, doi.org/10.1038/s41467-019-11332-4. IF: 17.69.

Chua ACY, Ananthanarayanan A, Ong JJY, Wong JY, Yip A, Singh NH, Qu Y, Dembele L, McMillian M, Ubalee R, Davidson S, Tungtaeng A, Imerbsin R, Gupta K, Andolina C, Lee F, S-W Tan K, Nosten F, Russell B, Lange A, Diagana TT, Rénia L, Yeung BKS, Yu H, **Bifani P***. Hepatic spheroids used as an in vitro model to study

malaria relapse. Biomaterials. 2019;216:119221. doi:10.1016/j.biomaterials.2019.05.032. IF: 15.3.

Meir M, **Bifani P**, Barkan D. The addition of avibactam renders piperacillin an effective treatment for *Mycobacterium abscessus* infection in an in vivo model. *Antimicrob Resist Infect Control*. 2018 Dec 13;7:151. doi: 10.1186/s13756-018-0448. IF: 4.51

Dembele L, Gupta DK, Lim MY, Ang X, Selva JJ, Chotivanich K, Nguon C, Dondorp AM, Bonamy GMC, Diagana TT, **Bifani P**. Imidazolopiperazines (IPZ) kill both rings and dormant rings in wild type and K13 artemisinin resistant *Plasmodium falciparum* in vitro. *Antimicrob Agents Chemother*. 2018 Mar 12. pii: AAC.02235-17. IF: 5.19

Voorberg-van der Wel A, Roma G, Gupta DK, Schuierer S, Nigsch F, Carbone W, Zeeman AM, Lee BH, Hofman SO, Faber BW, Knehr J, Pasini E, Kinzel B, **Bifani P**, Bonamy GMC, Bouwmeester T, Kocken CHM, Diagana TT. A comparative transcriptomic analysis of replicating and dormant liver stages of the relapsing malaria parasite *Plasmodium cynomolgi*. *Elife*. 2017 Dec 7;6. pii: e29605. IF: 8.7.

Varakorn Kosaisavee, Rossarin Suwanarusk, Adeline C. Y. Chua, Dennis E. Kyle, Benoit Malleret, Rou Zhang, Mallika Imwong, Rawiwan Imerbsin, Ratawan Ubalee, Hugo Samano, Bryan Yeung, Jessica Ong, Eric Lombardini, François Nosten, Kevin S. W. Tan, **Pablo Bifani**, Georges Snounou, Laurent Rénia, Bruce Russell. Species-specific Tropism for Erythrocyte Invasion as an Impediment to *Plasmodium cynomolgi*'s Zoonotic Potential. *Blood- BLOOD*. 14;130(11):1357-1363. IF: 22.11

Dembele L, Ang X, Chavchich M, Bonamy GMC, Selva JJ, Lim MY, Bodenreider C, Yeung BKS, Nosten F, Russell BM, Edstein MD, Straimer J, Fidock DA, Diagana TT, **Bifani P**. The Plasmodium PI(4)K inhibitor KDU691 selectively inhibits dihydroartemisinin-pretreated *Plasmodium falciparum* ring-stage parasites. *Sci Rep*. 2017 May 24;7(1):2325. IF: 5.33

Brown TS, Narechania A, Walker JR, Planet PJ, **Bifani PJ**, Kolokotronis SO, Kreiswirth BN, Mathema B. 2016. Genomic epidemiology of Lineage 4 *Mycobacterium tuberculosis* subpopulations in New York City and New Jersey, 1999-2009. *BMC Genomics*. 2016 Nov 21;17(1):947. IF: 4.34

Lim, M. Y. X., LaMonte, G., Lee, M. C. S., Reimer, C., Tan, B. H., Corey, V., Tjahjadi, B. F., Chua, A., Nachon, M., Wintjens, R., Gedeck, P., Malleret, B., Renia, L., Bonamy, G. M. C., Ho, P. C. L., Yeung, B. K. S., Chow, E. D., Lim, L., Fidock, D. A., Diagana, T. T., Winzeler, E. A., and **Bifani, P.** (2016) UDP-galactose and Acetyl-CoA transporters as *Plasmodium* multidrug resistance genes. *Nature Microbiology* 1:161-66. IF: 30.96

LaMonte, G., Lim, M. Y. X., Wree, M., Nachon, M., Corey, V., Gedeck, P., Plouffe, D., Du, A., Figueroa, N., Yeung, B. K. S., **Bifani*, P.**, and Winzeler*, E. (2016) Mutations in the *P. falciparum* Cyclic Amine Resistance Locus (PfCARL) confer multi-drug resistance. *mBio* 7, e00696-00616. IF: 6.786

Ghode, P., Ramachandran, S., **Bifani, P.**, and Sivaraman, J. (2016) Structure and mapping of spontaneous mutational sites of PyrR from *Mycobacterium tuberculosis*. Biochemical and Biophysical Research Communications 471, 409-415. IF: 3.57.

Soetaert, K., Rens, C., Wang, X. M., De Bruyn, J., Laneelle, M. A., Laval, F., Lemassu, A., Daffe, M., **Bifani, P.**, Fontaine, V., and Lefevre, P. (2015) Increased Vancomycin Susceptibility in Mycobacteria: a New Approach To Identify Synergistic Activity against Multidrug-Resistant Mycobacteria. Antimicrobial Agents and Chemotherapy 59, 5057-5060. IF: 5.19

Sasmono, R. T., Wahid, I., Trimarsanto, H., Yohan, B., Wahyuni, S., Hertanto, M., Yusuf, I., Mubin, H., Ganda, I. J., Latief, R., **Bifani, P. J.**, Shi, P. Y., and Schreiber, M. J. (2015) Genomic analysis and growth characteristic of dengue viruses from Makassar, Indonesia. Infection, Genetics and Evolution 32, 165-177. IF: 3.34.

Haver, H. L., Chua, A., Ghode, P., Lakshminarayana, S. B., Singhal, A., Mathema, B., Wintjens, R., and **Bifani, P.** (2015) Mutations in genes for the F420 biosynthetic pathway and a nitroreductase enzyme are the primary resistance determinants in spontaneous in vitro-selected PA-824-resistant mutants of *Mycobacterium tuberculosis*. Antimicrobial Agents and Chemotherapy 59, 5316-5323. IF: 5.19

Ghode, P., Jobichen, C., Ramachandran, S., **Bifani, P.**, and Sivaraman, J. (2015) Structural basis of mapping the spontaneous mutations with 5-flurouracil in uracil phosphoribosyltransferase from *Mycobacterium tuberculosis*. Biochemical and Biophysical Research Communications 467, 577-582. IF: 3.57.

Yokokawa, F., Wang, G., Chan, W. L., Ang, S. H., Wong, J., Ma, I., Rao, S. P., Manjunatha, U., Lakshminarayana, S. B., Herve, M., Kounde, C., Tan, B. H., Thayalan, P., Ng, S. H., Nanjundappa, M., Ravindran, S., Gee, P., Tan, M., Wei, L., Goh, A., Chen, P. Y., Lee, K. S., Zhong, C., Wagner, T., Dix, I., Chatterjee, A. K., Pethe, K., Kuhen, K., Glynne, R., Smith, P., **Bifani, P.**, and Jiricek, J. (2013) Discovery of tetrahydropyrazolopyrimidine carboxamide derivatives as potent and orally active antitubercular agents. ACS Medicinal Chemistry Letters 4, 451-455. IF: 4.34.

Rao, S. P., Lakshminarayana, S. B., Kondreddi, R. R., Herve, M., Camacho, L. R., **Bifani, P.**, Kalapala, S. K., Jiricek, J., Ma, N. L., Tan, B. H., Ng, S. H., Nanjundappa, M., Ravindran, S., Seah, P. G., Thayalan, P., Lim, S. H., Lee, B. H., Goh, A., Barnes, W. S., Chen, Z., Gagaring, K., Chatterjee, A. K., Pethe, K., Kuhen, K., Walker, J., Feng, G., Babu, S., Zhang, L., Blasco, F., Beer, D., Weaver, M., Dartois, V., Glynne, R., Dick, T., Smith, P. W., Diagana, T. T., and Manjunatha, U. H. (2013) Indolcarboxamide is a preclinical candidate for treating multidrug-resistant tuberculosis. Science Translational Medicine 5, 214ra168. IF: 17.20.

Pethe*, K., **Bifani***, P., Jang, J., Kang, S., Park, S., Ahn, S., Jiricek, J., Jung, J., Jeon, H. K., Cechetto, J., Christophe, T., Lee, H., Kempf, M., Jackson, M., Lenaerts, A. J., Pham, H., Jones, V., Seo, M. J., Kim, Y. M., Seo, M., Seo, J. J., Park, D., Ko, Y., Choi, I., Kim, R., Kim, S. Y., Lim, S., Yim, S. A., Nam, J., Kang, H., Kwon, H., Oh, C. T., Cho, Y., Jang, Y., Kim, J., Chua, A., Tan, B. H., Nanjundappa, M. B., Rao, S. P., Barnes, W. S., Wintjens, R., Walker, J. R., Alonso, S., Lee, S., Kim, J., Oh, S., Oh, T., Nehrbass, U., Han, S. J., No, Z., Lee, J., Brodin, P., Cho, S. N., Nam, K., and Kim, J.

(2013) Discovery of Q203, a potent clinical candidate for the treatment of tuberculosis. Nature Medicine 19, 1157-1160. IF: 87.24.

Murima, P., de Sessions, P. F., Lim, V., Naim, A. N., **Bifani, P.**, Boshoff, H. I., Sambandamurthy, V. K., Dick, T., Hibberd, M. L., Schreiber, M., and Rao, S. P. (2013) Exploring the mode of action of bioactive compounds by microfluidic transcriptional profiling in mycobacteria. PloS One 8, e69191. IF: 3.23

Kondreddi, R. R., Jiricek, J., Rao, S. P., Lakshminarayana, S. B., Camacho, L. R., Rao, R., Herve, M., **Bifani, P.**, Ma, N. L., Kuhen, K., Goh, A., Chatterjee, A. K., Dick, T., Diagana, T. T., Manjunatha, U. H., and Smith, P. W. (2013) Design, synthesis, and biological evaluation of indole-2-carboxamides: a promising class of antituberculosis agents. Journal of Medicinal Chemistry 56, 8849-8859. IF: 8.03.

Stoffels, K., Mathys, V., Fauville-Dufaux, M., Wintjens, R., and **Bifani, P.** (2012) Systematic analysis of pyrazinamide-resistant spontaneous mutants and clinical isolates of Mycobacterium tuberculosis. Antimicrobial Agents and Chemotherapy 56, 5186-5193. IF: 5.19.

Sasmono, R. T., Massi, M. N., Setianingsih, T. Y., Wahyuni, S., Anita, Halik, H., Yusuf, I., Dick, T., Sola, C., **Bifani, P.** J., and Phy, S. (2012) Heterogeneity of Mycobacterium tuberculosis strains in Makassar, Indonesia. International Journal of Tuberculosis and Lung Disease 16, 1441-1448. IF: 2.32

Mathema, B., Kurepina, N., Yang, G., Shashkina, E., Manca, C., Mehaffy, C., Bielefeldt-Ohmann, H., Ahuja, S., Fallows, D. A., Izzo, A., **Bifani, P.**, Dobos, K., Kaplan, G., and Kreiswirth, B. N. (2012) Epidemiologic consequences of microvariation in Mycobacterium tuberculosis. Journal of Infectious Diseases 205, 964-974. IF: 5.99

Mak, P. A., Rao, S. P., Ping Tan, M., Lin, X., Chyba, J., Tay, J., Ng, S. H., Tan, B. H., Cherian, J., Duraiswamy, J., **Bifani, P.**, Lim, V., Lee, B. H., Ling Ma, N., Beer, D., Thayalan, P., Kuhen, K., Chatterjee, A., Supek, F., Glynne, R., Zheng, J., Boshoff, H. I., Barry, C. E., 3rd, Dick, T., Pethe, K., and Camacho, L. R. (2012) A high-throughput screen to identify inhibitors of ATP homeostasis in non-replicating Mycobacterium tuberculosis. ACS Chemical Biology 7, 1190-1197. IF: 5.33

Jimenez, J. N., Ocampo, A. M., Vanegas, J. M., Rodriguez, E. A., Mediavilla, J. R., Chen, L., Muskus, C. E., Velez, L. A., Rojas, C., Restrepo, A. V., Ospina, S., Garces, C., Franco, L., **Bifani, P.**, Kreiswirth, B. N., and Correa, M. M. (2012) CC8 MRSA strains harboring SCCmec type IVc are predominant in Colombian hospitals. PloS One 7, e38576. IF: 3.23

Wang, X. M., Lu, C., Soetaert, K., S'Heeren, C., Peirs, P., Laneelle, M. A., Lefevre, P., **Bifani, P.**, Content, J., Daffe, M., Huygen, K., De Bruyn, J., and Wattiez, R. (2011) Biochemical and immunological characterization of a cpn60.1 knockout mutant of Mycobacterium bovis BCG. Microbiology 157, 1205-1219. IF: 2.56

Singhal, A., Mathys, V., Kiass, M., Creusy, C., Delaire, B., Aliouat el, M., Dartois, V., Kaplan, G., and **Bifani, P.** (2011) BCG induces protection against *Mycobacterium tuberculosis* infection in the Wistar rat model. *PLoS One* 6, e28082. IF: 3.23

Singhal, A., Aliouat el, M., Herve, M., Mathys, V., Kiass, M., Creusy, C., Delaire, B., Tsenova, L., Fleurisse, L., Bertout, J., Camacho, L., Foo, D., Tay, H. C., Siew, J. Y., Boukhouchi, W., Romano, M., Mathema, B., Dartois, V., Kaplan, G., and **Bifani, P.** (2011) Experimental tuberculosis in the Wistar rat: a model for protective immunity and control of infection. *PLoS One* 6, e18632. IF: 3.23

Mestre, O., Luo, T., Dos Vultos, T., Kremer, K., Murray, A., Namouchi, A., Jackson, C., Rauzier, J., **Bifani, P.**, Warren, R., Rasolofa, V., Mei, J., Gao, Q., and Gicquel, B. (2011) Phylogeny of *Mycobacterium tuberculosis* Beijing strains constructed from polymorphisms in genes involved in DNA replication, recombination and repair. *PLoS One* 6, e16020. IF: 3.23

Makinen, J., Marjamaki, M., Haanpera-Heikkinen, M., Marttila, H., Endourova, L. B., Presnova, S. E., Mathys, V., **Bifani, P.**, Ruohonen, R., Viljanen, M. K., and Soini, H. (2011) Extremely high prevalence of multidrug resistant tuberculosis in Murmansk, Russia: a population-based study. *European Journal of Clinical Microbiology & Infectious Diseases* 30, 1119-1126. IF: 3.99.

Heng, Y., Seah, P. G., Siew, J. Y., Tay, H. C., Singhal, A., Mathys, V., Kiass, M., **Bifani, P.**, Dartois, V., and Herve, M. (2011) *Mycobacterium tuberculosis* infection induces hypoxic lung lesions in the rat. *Tuberculosis* 91, 339-341. IF: 2.71

Foo, D. G., Tay, H. C., Siew, J. Y., Singhal, A., Camacho, L., **Bifani, P.**, Dartois, V., and Herve, M. (2011) T cell monitoring of chemotherapy in experimental rat tuberculosis. *Antimicrobial Agents and Chemotherapy* 55, 3677-3683. IF: 5.19

Pethe, K., Sequeira, P. C., Agarwalla, S., Rhee, K., Kuhen, K., Phong, W. Y., Patel, V., Beer, D., Walker, J. R., Duraiswamy, J., Jiricek, J., Keller, T. H., Chatterjee, A., Tan, M. P., Ujjini, M., Rao, S. P., Camacho, L., **Bifani, P.**, Mak, P. A., Ma, I., Barnes, S. W., Chen, Z., Plouffe, D., Thayalan, P., Ng, S. H., Au, M., Lee, B. H., Tan, B. H., Ravindran, S., Nanjundappa, M., Lin, X., Goh, A., Lakshminarayana, S. B., Shoen, C., Cynamon, M., Kreiswirth, B., Dartois, V., Peters, E. C., Glynne, R., Brenner, S., and Dick, T. (2010) A chemical genetic screen in *Mycobacterium tuberculosis* identifies carbon-source-dependent growth inhibitors devoid of in vivo efficacy. *Nature Communications* 1, 57. IF: 17.69.

Aryan, E., Makvandi, M., Farajzadeh, A., Huygen, K., **Bifani, P.**, Mousavi, S. L., Fateh, A., Jelodar, A., Gouya, M. M., and Romano, M. (2010) A novel and more sensitive loop-mediated isothermal amplification assay targeting IS6110 for detection of *Mycobacterium tuberculosis* complex. *Microbiological Research* 165, 211-220. IF: 4.45.

Willand, N., Dirie, B., Carette, X., **Bifani, P.**, Singhal, A., Desroses, M., Leroux, F., Willery, E., Mathys, V., Deprez-Poulain, R., Delcroix, G., Frenois, F., Aumercier, M., Locht, C., Villeret, V., Deprez, B., and Baulard, A. R. (2009) Synthetic EthR inhibitors boost antituberculous activity of ethionamide. *Nature Medicine* 15, 537-544. IF: 87.24.

Mathys, V., Wintjens, R., Lefevre, P., Bertout, J., Singhal, A., Kiass, M., Kurepina, N., Wang, X. M., Mathema, B., Baulard, A., Kreiswirth, B. N., and **Bifani, P.** (2009) Molecular genetics of para-aminosalicylic acid resistance in clinical isolates and spontaneous mutants of *Mycobacterium tuberculosis*. *Antimicrobial Agents and Chemotherapy* 53, 2100-2109 IF: 5.19.

Capoor, M. R., Nair, D., Walia, N. S., Routela, R. S., Grover, S. S., Deb, M., Aggarwal, P., Pillai, P. K., and **Bifani, P. J.** (2009) Molecular analysis of high-level ciprofloxacin resistance in *Salmonella enterica* serovar Typhi and *S. Paratyphi A*: need to expand the QRDR region? *Epidemiology and infection* 137, 871-878. IF: 4.43.

Bifani, P., Kurepina, N., Mathema, B., Wang, X. M., and Kreiswirth, B. (2009) Genotyping of *Mycobacterium tuberculosis* clinical isolates using IS6110-based restriction fragment length polymorphism analysis. *Methods in Molecular Biology* 551, 173-188. IF: 1.29

Akhtar, P., Singh, S., **Bifani, P.**, Kaur, S., Srivastava, B. S., and Srivastava, R. (2009) Variable-number tandem repeat 3690 polymorphism in Indian clinical isolates of *Mycobacterium tuberculosis* and its influence on transcription. *Journal of Medical Microbiology* 58, 798-805. IF: 2.25

Wang, X. M., Galamba, A., Warner, D. F., Soetaert, K., Merkel, J. S., Kalai, M., **Bifani, P.**, Lefevre, P., Mizrahi, V., and Content, J. (2008) IS1096-mediated DNA rearrangements play a key role in genome evolution of *Mycobacterium smegmatis*. *Tuberculosis* 88, 399-409. IF: 2.7

Mishra, K. C., de Chastellier, C., Narayana, Y., **Bifani, P.**, Brown, A. K., Besra, G. S., Katoch, V. M., Joshi, B., Balaji, K. N., and Kremer, L. (2008) Functional role of the PE domain and immunogenicity of the *Mycobacterium tuberculosis* triacylglycerol hydrolase LipY. *Infection and Immunity* 76, 127-140. IF: 3.73

Deshayes, C., Perrodou, E., Euphrasie, D., Frapy, E., Poch, O., **Bifani, P.**, Lecompte, O., and Reyrat, J. M. (2008) Detecting the molecular scars of evolution in the *Mycobacterium tuberculosis* complex by analyzing interrupted coding sequences. *BMC Evolutionary Biology* 8, 7. IF: 3.37

Bifani, P., Mathema, B., Kurepina, N., Shashkina, E., Bertout, J., Blanchis, A. S., Moghazeh, S., Driscoll, J., Gicquel, B., Frothingham, R., and Kreiswirth, B. N. (2008) The evolution of drug resistance in *Mycobacterium tuberculosis*: from a monorifampin-resistant cluster into increasingly multidrug-resistant variants in an HIV-seropositive population. *Journal of Infectious Diseases* 198, 90-94. IF: 5.99

Allix-Beguec, C., Supply, P., Wanlin, M., **Bifani, P.**, and FauvilleDufaux, M. (2008) Standardised PCR-based molecular epidemiology of tuberculosis. *The European Respiratory Journal* 31, 1077-1084. IF: 16.67.

Donnio, P. Y., Fevrier, F., **Bifani, P.**, Dehem, M., Kervegant, C., Wilhelm, N., Gautier-Lerestif, A. L., Lafforgue, N., Cormier, M., France, M.-M. S. G. o. t. C. d. B.-V.-H. d. H. d., and Le Coustumier, A. (2007) Molecular and epidemiological evidence for spread

of multiresistant methicillin-susceptible *Staphylococcus aureus* strains in hospitals. *Antimicrobial Agents and Chemotherapy* 51, 4342-4350. IF: 5.19.

Capoor, M. R., Nair, D., Aggarwal, P., Mathys, V., Dehem, M., and **Bifani, P.** J. (2007) *Salmonella enterica* serovar typhi: molecular analysis of strains with decreased susceptibility and resistant to ciprofloxacin in India from 2001-2003. *The Brazilian Journal of Infectious Diseases* 11, 423-425. IF: 3.25.

Supply, P., Allix, C., Lesjean, S., Cardoso-Oelemann, M., Rusch-Gerdes, S., Willery, E., Savine, E., de Haas, P., van Deutkom, H., Roring, S., **Bifani, P.**, Kurepina, N., Kreiswirth, B., Sola, C., Rastogi, N., Vatin, V., Gutierrez, M. C., Fauville, M., Niemann, S., Skuce, R., Kremer, K., Locht, C., and van Soolingen, D. (2006) Proposal for standardization of optimized mycobacterial interspersed repetitive unit-variable-number tandem repeat typing of *Mycobacterium tuberculosis*. *Journal of Clinical Microbiology* 44, 4498-4510. IF: 5.89.

Mathema, B., Kurepina, N. E., **Bifani, P.** J., and Kreiswirth, B. N. (2006) Molecular epidemiology of tuberculosis: current insights. *Clinical Microbiology Reviews* 19, 658-685. IF: 50.13

Kurepina, N., Likhoshvay, E., Shashkina, E., Mathema, B., Kremer, K., van Soolingen, D., **Bifani, P.**, and Kreiswirth, B. N. (2005) Targeted hybridization of IS6110 fingerprints identifies the W-Beijing *Mycobacterium tuberculosis* strains among clinical isolates. *Journal of Clinical Microbiology* 43, 2148-2154. IF: 5.89.

Kremer, L., de Chastellier, C., Dobson, G., Gibson, K. J., **Bifani, P.**, Balor, S., Gorvel, J. P., Locht, C., Minnikin, D. E., and Besra, G. S. (2005) Identification and structural characterization of an unusual mycobacterial monomeromycetyl-diacylglycerol. *Molecular Microbiology* 57, 1113-1126. IF: 4.42

Ben Amor, Y., Shashkina, E., Johnson, S., **Bifani, P.** J., Kurepina, N., Kreiswirth, B., Bhattacharya, S., Spencer, J., Rendon, A., Catanzaro, A., and Gennaro, M. L. (2005) Immunological characterization of novel secreted antigens of *Mycobacterium tuberculosis*. *Scandinavian journal of Immunology* 61, 139-146. IF: 4.42

Kremer, K., Glynn, J. R., Lillebaek, T., Niemann, S., Kurepina, N. E., Kreiswirth, B. N., **Bifani, P.** J., and van Soolingen, D. (2004) Definition of the Beijing/W lineage of *Mycobacterium tuberculosis* on the basis of genetic markers. *Journal of Clinical Microbiology* 42, 4040-4049. IF: 5.89.

Munsiff, S. S., Nivin, B., Sacajiu, G., Mathema, B., **Bifani, P.**, and Kreiswirth, B. N. (2003) Persistence of a highly resistant strain of tuberculosis in New York City during 1990-1999. *Journal of Infectious Diseases* 188, 356-363. IF: 5.99

Filliol, I., Driscoll, J. R., van Soolingen, D., Kreiswirth, B. N., Kremer, K., Valetudie, G., Dang, D. A., Barlow, R., Banerjee, D., **Bifani, P.** J., Brudey, K., Cataldi, A., Cooksey, R. C., Cousins, D. V., Dale, J. W., Dellagostin, O. A., Drobniowski, F., Engelmann, G., Ferdinand, S., Gascoyne-Binzi, D., Gordon, M., Gutierrez, M. C., Haas, W. H., Heersma, H., Kassa-Kelembho, E., Ho, M. L., Makristathis, A., Mammina, C., Martin, G., Mostrom, P., Mokrousov, I., Narbonne, V., Narvskaya, O., Nastasi, A., Niobe-

Eyangoh, S. N., Pape, J. W., Rasolofo-Razanamparany, V., Ridell, M., Rossetti, M. L., Stauffer, F., Suffys, P. N., Takiff, H., Texier-Maugein, J., Vincent, V., de Waard, J. H., Sola, C., and Rastogi, N. (2003) Snapshot of moving and expanding clones of *Mycobacterium tuberculosis* and their global distribution assessed by spoligotyping in an international study. *Journal of Clinical Microbiology* 41, 1963-1970. IF: 5.89

Ebrahimi-Rad, M., **Bifani, P.**, Martin, C., Kremer, K., Samper, S., Rauzier, J., Kreiswirth, B., Blazquez, J., Jouan, M., van Soolingen, D., and Gicquel, B. (2003) Mutations in putative mutator genes of *Mycobacterium tuberculosis* strains of the W-Beijing family. *Emerging Infectious Diseases* 9, 838-845. IF: 6.75

Pethe, K., **Bifani, P.**, Drobecq, H., Sergheraert, C., Debrie, A. S., Locht, C., and Menozzi, F. D. (2002) Mycobacterial heparin-binding hemagglutinin and laminin-binding protein share antigenic methyllysines that confer resistance to proteolysis. *Proceedings of the National Academy of Sciences, U.S.A.* 99, 10759-10764. IF: 11.2

Munsiff, S. S., Bassoff, T., Nivin, B., Li, J., Sharma, A., **Bifani, P.**, Mathema, B., Driscoll, J., and Kreiswirth, B. N. (2002) Molecular epidemiology of multidrug-resistant tuberculosis, New York City, 1995-1997. *Emerging Infectious Diseases* 8, 1230-1238. IF: 6.75

Menozzi, F. D., Pethe, K., **Bifani, P.**, Soncin, F., Brennan, M. J., and Locht, C. (2002) Enhanced bacterial virulence through exploitation of host glycosaminoglycans. *Molecular Microbiology* 43, 1379-1386. IF: 4.42

Mathema, B., **Bifani, P. J.**, Driscoll, J., Steinlein, L., Kurepina, N., Moghazeh, S. L., Shashkina, E., Marras, S. A., Campbell, S., Mangura, B., Shilkret, K., Crawford, J. T., Frothingham, R., and Kreiswirth, B. N. (2002) Identification and evolution of an IS6110 low-copy-number *Mycobacterium tuberculosis* cluster. *Journal of Infectious Diseases* 185, 641-649. IF: 5.02

Kremer, L., Gurcha, S. S., **Bifani, P.**, Hitchen, P. G., Baulard, A., Morris, H. R., Dell, A., Brennan, P. J., and Besra, G. S. (2002) Characterization of a putative alpha-mannosyltransferase involved in phosphatidylinositol trimannoside biosynthesis in *Mycobacterium tuberculosis*. *Biochemical Journal* 363, 437-447. IF: 4.4

Glynn, J. R., Whiteley, J., **Bifani, P. J.**, Kremer, K., and van Soolingen, D. (2002) Worldwide occurrence of Beijing/W strains of *Mycobacterium tuberculosis*: a systematic review. *Emerging Infectious Diseases* 8, 843-849. IF: 6.75

Filliol, I., Driscoll, J. R., Van Soolingen, D., Kreiswirth, B. N., Kremer, K., Valetudie, G., Anh, D. D., Barlow, R., Banerjee, D., **Bifani, P. J.**, Brudey, K., Cataldi, A., Cooksey, R. C., Cousins, D. V., Dale, J. W., Dellagostin, O. A., Drobiewski, F., Engelmann, G., Ferdinand, S., Gascoyne-Binzi, D., Gordon, M., Gutierrez, M. C., Haas, W. H., Heersma, H., Kallenius, G., Kassa-Kelembho, E., Koivula, T., Ly, H. M., Makristathis, A., Mammina, C., Martin, G., Mostrom, P., Mokrousov, I., Narbonne, V., Narvskaya, O., Nastasi, A., Niobe-Eyangoh, S. N., Pape, J. W., Rasolofo-Razanamparany, V., Ridell, M., Rossetti, M. L., Stauffer, F., Suffys, P. N., Takiff, H., Texier-Maugein, J., Vincent, V., De Waard, J. H., Sola, C., and Rastogi, N. (2002) Global distribution of

Mycobacterium tuberculosis spoligotypes. Emerging Infectious Diseases 8, 1347-1349. IF: 6.75

Driscoll, J. R., **Bifani, P. J.**, Mathema, B., McGarry, M. A., Zickas, G. M., Kreiswirth, B. N., and Taber, H. W. (2002) Spoligologos: a bioinformatic approach to displaying and analyzing *Mycobacterium tuberculosis* data. Emerging Infectious Diseases 8, 1306-1309. IF: 6.75

Bifani, P. J., Mathema, B., Kurepina, N. E., and Kreiswirth, B. N. (2002) Global dissemination of the *Mycobacterium tuberculosis* W-Beijing family strains. Trends in Microbiology 10, 45-52. IF: 6.75

Kato-Maeda, M., **Bifani, P. J.**, Kreiswirth, B. N., and Small, P. M. (2001) The nature and consequence of genetic variability within *Mycobacterium tuberculosis*. Journal of Clinical Investigation 107, 533-537. IF: 13.26

Johnson, S., Brusasca, P., Lyashchenko, K., Spencer, J. S., Wiker, H. G., **Bifani, P.**, Shashkina, E., Kreiswirth, B., Harboe, M., Schluger, N., Gomez, M., and Gennaro, M. L. (2001) Characterization of the secreted MPT53 antigen of *Mycobacterium tuberculosis*. Infection and Immunity 69, 5936-5939. IF: 3.73

Bifani, P., Mathema, B., Campo, M., Moghazeh, S., Nivin, B., Shashkina, E., Driscoll, J., Munsiff, S. S., Frothingham, R., and Kreiswirth, B. N. (2001) Molecular identification of streptomycin monoresistant *Mycobacterium tuberculosis* related to multidrug-resistant W strain. Emerging Infectious Diseases 7, 842-848. IF: 6.75

Nivin, B., Driscoll, J., Glaser, T., **Bifani, P.**, and Munsiff, S. (2000) Use of spoligotype analysis to detect laboratory cross-contamination. Infection Control and Hospital Epidemiology 21, 525-527. IF: 4.18

Colangeli, R., Spencer, J. S., **Bifani, P.**, Williams, A., Lyashchenko, K., Keen, M. A., Hill, P. J., Belisle, J., and Gennaro, M. L. (2000) MTSA-10, the product of the Rv3874 gene of *Mycobacterium tuberculosis*, elicits tuberculosis-specific, delayed-type hypersensitivity in guinea pigs. Infection and Immunity 68, 990-993. IF: 3.73

Bifani, P. J., Shopsin, B., Alcabes, P., Mathema, B., Kreiswirth, B. N., Liu, Z., Driscoll, J., Frothingham, R., and Musser, J. M. (2000) Molecular epidemiology and tuberculosis control. JAMA 284, 305-307. IF: 157.2.

Bifani, P., Moghazeh, S., Shopsin, B., Driscoll, J., Ravikovitch, A., and Kreiswirth, B. N. (2000) Molecular characterization of *Mycobacterium tuberculosis* H37Rv/Ra variants: distinguishing the mycobacterial laboratory strain. Journal of Clinical Microbiology 38, 3200-3204. IF: 5.89.

Bifani, P. J., Mathema, B., Liu, Z., Moghazeh, S. L., Shopsin, B., Tempalski, B., Driscoll, J., Frothingham, R., Musser, J. M., Alcabes, P., and Kreiswirth, B. N. (1999) Identification of a W variant outbreak of *Mycobacterium tuberculosis* via population-based molecular epidemiology. JAMA 282, 2321-2327. IF: 157.3

Kurepina, N. E., Sreevatsan, S., Plikaytis, B. B., **Bifani, P. J.**, Connell, N. D., Donnelly, R. J., van Sooligen, D., Musser, J. M., and Kreiswirth, B. N. (1998) Characterization of the phylogenetic distribution and chromosomal insertion sites of five IS6110 elements in *Mycobacterium tuberculosis*: non-random integration in the dnaA-dnaN region. *Tubercle and Lung Disease* 79, 31-42. IF: 2.32

Haas, D. W., Milton, S., Kreiswirth, B. N., Brinsko, V. L., **Bifani, P. J.**, and Schaffner, W. (1998) Nosocomial transmission of a drug-sensitive W-variant *Mycobacterium tuberculosis* strain among patients with acquired immunodeficiency syndrome in Tennessee. *Infection Control and Hospital Epidemiology* 19, 635-639. IF: 4.18

Sreevatsan, S., Escalante, P., Pan, X., Gillies, D. A., 2nd, Siddiqui, S., Khalaf, C. N., Kreiswirth, B. N., **Bifani, P.**, Adams, L. G., Ficht, T., Perumaalla, V. S., Cave, M. D., van Embden, J. D., and Musser, J. M. (1996) Identification of a polymorphic nucleotide in oxyR specific for *Mycobacterium bovis*. *Journal of Clinical Microbiology* 34, 2007-2010. IF: 5.89.

Bifani, P. J., Plikaytis, B. B., Kapur, V., Stockbauer, K., Pan, X., Lutfey, M. L., Moghazeh, S. L., Eisner, W., Daniel, T. M., Kaplan, M. H., Crawford, J. T., Musser, J. M., and Kreiswirth, B. N. (1996) Origin and interstate spread of a New York City multidrug-resistant *Mycobacterium tuberculosis* clone family. *JAMA* 275, 452-457. IF: 157.2

Petmitr, S., Fucharoen, S., Rajkulchai, P., **Bifani, J. P.**, and Wilairat, P. (1993) Beta 0-thalassemia due to a cytosine deletion in codon 41 associated with hemoglobin E. *The Southeast Asian Journal of Tropical Medicine and Public Health* 24, 384-38. IF: 0.72

Reviews and book chapters:

Vanessa Mathys, Barun Mathema & **Pablo Bifani**. Genotypic Measures of Antibiotic Susceptibility. *Tuberculosis: Molecular Techniques in Diagnosis and Treatment*. Editor: T. McHugh. Editorial: <http://www.cabi.org/> 2011.

Amit Singhal, El Moukhtar Aliouat, Colette Creusy, Gilla Kaplan, **Pablo Bifani**. 2010. Pulmonary tuberculosis in the rat, in *A Colour Atlas of Comparative Pulmonary Tuberculosis Histopathology*. F. J. Leong et al., Ed. Routledge, Taylor & Francis Group.

Pablo Bifani, Barun Mathema, Natalia Kurepina Xiao Ming Wang and Barry Kreiswirth. 2009. Insertion sequence-based typing for *Mycobacterium* spp. Chapter 14. *Methods in Molecular Biology*, Human Press. *Molecular Epidemiology of Microorganisms*, Dominique A. Caugant Ed. *Methods Mol Biol.*: 551:173-88.

Vanessa Mathys, Philippe Lefèvre, Véronique Fontaine, Marie Dehem, Pierre-Yves Donnio, Frédéric Février, Alain Le Coustoumier, **Pablo Bifani**. 2007. La PCR en temps réel: principe et application en infectiologie. *Antibiotiques* 9: 205-11.

Barun Mathema, Natalia E. Kurepina: **Pablo J. Bifani**, Barry N. Kreiswirth. 2006. Molecular Epidemiology of *Mycobacterium tuberculosis*: Current insights. *Clinical Microbiology Review –ASM*: 19(4):658-85. Impact factor: 17.41,

Glynn J. R., J. Whiteley, **P. Bifani**, K. Kremer and D. van Soolingen. Worldwide occurrence of Beijing/W strains of *Mycobacterium tuberculosis*: a systematic review. Emerging Infectious Diseases. Vol 8(8):843-849. Impact factor: 8.22,

Bifani, P., B. Mathema, N. Kurepina, B. N. Kreiswirth. 2002. Global dissemination of *M. tuberculosis* W-Beijing family. Trends in Microbiology. 10(1):45-52. Impact factor: 11.02,

Menozzi, F.D., Pethe, K., **Bifani, P.**, Soncin, F., Brennan, M.J., Locht, C. 2002. Enhanced bacterial virulence through exploitation of host glycosaminoglycans. Molecular Microbiology. 43(6): 1379-1386. Impact factor: 5.26,

Kato-Maede, M, **P. Bifani**, B. Kreiswirth, P. Small. The nature and consequence of genetic variability within *M. tuberculosis*: Better informed, but how much smarter? Journal of Clinical Investigation 107(5): 533-537. Impact factor: 12.78,

Bifani, JP. Thesis. Sackler School of Medicine, Biomedical Sciences, New York University, 236 pages, 2000. Genetic Analysis of Natural Populations of *Mycobacterium tuberculosis* Using Molecular Fingerprinting Tools.

Bifani, JP. Design, and Synthesis of Industrial Lipase. 1993. Master of Science, (Biochemistry) Thesis. Department of Graduate Studies, Mahidol University. Bangkok, Thailand. 204 pages