

PERSONAL INFORMATION

Maurizio Sanguinetti



📍 Via del Forte Boccea 127 – 00167 – Rome - Italy

☎ +39063054411 📠 +393494457874

✉ Maurizio.sanguinetti@unicatt.it

CF SNGMRZ66H23H501W

Sex Male | Date of birth 23/06/1966 | Nationality Italian

WORK EXPERIENCE

From June 11th, 2020 to
December 11th, 2021

participation as coordinator of WP2 and WP4 for the project “POR FESR LAZIO 2014/2020 REGIONE LAZIO Avviso pubblico “Progetti Strategici 2019” - POR FESR Lazio 2014-2020 - Azione 1.1.4” - approved with “Determinazione n. G04052 del 04/04/2019 - modificato con Determinazione n. G09335/2019 - pubblicato sul BURL n. 29 del 09/04/2019 Codice CUP : B94I20001150002 Protocol number: A0320-2019- 28191

September 2020- present
September 2020

Provider for SARS-CoV-2 diagnostic tests for the Italian Basketball Federation and Italian Swimming Federation

2015 – present

Tournament Infection Control Officer at IBI 2020 Rome Tennis Tournament (Internazionali d'Italia)

2011 – present

Director of the Department of Laboratory and Infectious Diseases Sciences, Fondazione Policlinico “A. Gemelli” – Università Cattolica del S. Cuore, Roma, Italy

2011 – present

Director of the Institute of Microbiology, Università Cattolica del S. Cuore, Roma, Italy

2011 – present

Chief of the Division of Clinical Microbiology, Fondazione Policlinico “A. Gemelli” – Università Cattolica del S. Cuore, Roma, Italy

Full Professor of Microbiology, Università Cattolica del S. Cuore, Roma, Italy

- Teaching activities in the courses of: Medicine and Surgery; Medicine and Surgery in the English-taught course; Lab technician; Dental Sciences; Post-graduate courses.
- Research: His research interests range from the development of molecular methods for rapid diagnosis of bacterial, mycobacterial and fungal infections to the elucidation of virulence and antimicrobial resistance traits in *Cryptococcus*, *Candida*, and *Enterococcus*, and the characterization of the human microbiota in relationship to human diseases

2003 – 2011

- Clinical Microbiology: Management and direction of the Microbiology Laboratory of the “A. Gemelli” Hospital, which process more than 600,000 diagnostic tests per year

1996 – 2003

Assistant Professor of Microbiology, Università Cattolica del S. Cuore, Roma, Italy

1996 – 2011

Associate Professor of Microbiology, Università Cattolica del S. Cuore, Roma, Italy

Chief of the Mycology Lab of the Division of Clinical Microbiology, Università Cattolica del S. Cuore, Roma, Italy

EDUCATION AND TRAINING

1985 – 1991 Medical School, Università Cattolica del S. Cuore, Roma, Italy
 1991 – 1996 Specialist of Microbiology and Virology, Università Cattolica del S. Cuore, Roma, Italy

PERSONAL SKILLS

Mother tongue(s) Italian

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B1	C1	B1	B1	B1

[Common European Framework of Reference for Languages](#)

Communication skills Good communication skills gained through my experience as Director of complex diagnostic microbiology laboratories (more than 600,000 tests performed per year)

Organisational / managerial skills Significant leadership skills acquired in the management of a complex laboratory of microbiology (currently responsible for a team of more than 50 people)

Job-related skills Good command of quality control processes in the Laboratory of Microbiology (currently responsible for quality control)

Digital skills	SELF-ASSESSMENT				
	Information processing	Communication	Content creation	Safety	Problem solving
	Independent user	Independent user	Independent user	Independent user	Proficient user

Good command of office suite (word processor, spread sheet, presentation software)
 Good command of photo editing software for scientific purposes

Other skills Experienced naval modeller

Driving licence B

ADDITIONAL INFORMATION

Publications	403, <i>h</i> -index 68 (Google Scholar), 56 (Scopus) and 52 (ISI) and, from 2012, is included among the “Top Italian Scientists” (Via-Academy).
Presentations	Invited speaker in several national and international Congresses (TIMM, ECCMID, ASM Microbe, etc)
Editorial activities	Editor: Scientific Reports (2019 - now), International Journal of Microbiology (2013 - now), Frontiers in Microbiology (2018 - now), Journal of Chemotherapy (2009 - now), and Mycoses (2015 - now) Editorial Boards: Antimicrobial Agents and Chemotherapy, Journal of Clinical Microbiology, Journal of Chemotherapy, International Journal of Microbiology, Scientifica, Journal of Chemotherapy, and Mycoses
Honours and awards	Member of the European Conference on Infections in Leukemia (ECIL) Laboratory Working Group (2009); Secretary of the European Society of Clinical Microbiology and Infectious Diseases (ESCMID) Invasive Fungal Infections Study Group (EFISG) (2010 - 2016); Representative of the Italian Society of Human and Animal Mycology at the European Confederation of Medical Mycology (ECMM) (2011 - now); Member of the ESCMID Educational Subcommittee (2013 - 2016); Member of the ESCMID Executive Committee (2015 - now); Professional Affairs Officer of ESCMID (2015 – 2018); President Elect of ESCMID (2018-now); Member of the Executive Committee of the Italian Society of Microbiology (SIM) (2013 - now); Member of the Executive Committee of the Association of the Italian Clinical Microbiologists (AMCLI) (2014 - now). ESCMID Fellow.
Memberships	Italian Society of Microbiology (SIM), Association of the Italian Clinical Microbiologists (AMCLI), International Society of Human and Animal Mycology (ISHAM), American Society of Microbiology (ASM), European Society of Clinical Microbiology and Infectious Diseases (ESCMID).
List of publications (last 3 years)	<ol style="list-style-type: none"> 1. Addolorato G, Ponziani FR, Dionisi T, Mosoni C, Vassallo GA, Sestito L, Petito V, Picca A, Marzetti E, Tarli C, Mirijello A, Zocco MA, Lopetuso LR, Antonelli M, Rando MM, Paroni Sterbini F, Posteraro B, Sanguinetti M, Gasbarrini A. 2020. Gut microbiota compositional and functional fingerprint in patients with alcohol use disorder and alcohol-associated liver disease. <i>Liver Int</i> 40:878–888. doi:10.1111/liv.14383. 2. Angelis G de, Menchinelli G, Torelli R, Carolis E de, Posteraro P, Sanguinetti M, Posteraro B. 2020. Different detection capabilities by mycological media for <i>Candida</i> isolates from mono- or dual-species cultures. <i>PLoS One</i> 15:e0226467. doi:10.1371/journal.pone.0226467. 3. Angelis G de, Posteraro B, Biscetti F, Ianiro G, Zileri Dal Verme L, Cattani P, Franceschi F, Sanguinetti M, Gasbarrini A. 2020. Confirmed or unconfirmed cases of 2019 novel coronavirus pneumonia in Italian patients: a retrospective analysis of clinical features. <i>BMC Infect Dis</i> 20:775. doi:10.1186/s12879-020-05504-7. 4. Bellesi S, Metafuni E, Hohaus S, Maiolo E, Marchionni F, D’Innocenzo S, La Sorda M, Ferraironi M, Ramundo F, Fantoni M, Murri R, Cingolani A, Sica S, Gasbarrini A, Sanguinetti M, Chiusolo P, Stefano V de. 2020. Increased CD95 (Fas) and PD-1 expression in peripheral blood T lymphocytes in COVID-19 patients. <i>Br J Haematol</i>. doi:10.1111/bjh.17034. 5. Brai A, Riva V, Saladini F, Zamperini C, Trivisani CI, Garbelli A, Pennisi C, Giannini A, Boccuto A, Bugli F, Martini M, Sanguinetti M, Zazzi M, Dreassi E, Botta M, Maga G. 2020. DDX3X inhibitors, an effective way to overcome HIV-1 resistance targeting host proteins. <i>Eur J Med Chem</i> 200:112319. doi:10.1016/j.ejmech.2020.112319. 6. Brys ADH, Di Stasio E, Lenaert B, Sanguinetti M, Picca A, Calvani R, Marzetti E, Gambaro G, Bossola M. 2020. Serum interleukin-6 and endotoxin levels and their relationship with fatigue and depressive symptoms in patients on chronic haemodialysis. <i>Cytokine</i> 125:154823. doi:10.1016/j.cyto.2019.154823. 7. Buonsenso D, Costa S, Sanguinetti M, Cattani P, Posteraro B, Marchetti S, Carducci B, Lanzone A, Tamburrini E, Vento G, Valentini P. 2020. Neonatal Late Onset Infection with Severe Acute Respiratory Syndrome Coronavirus 2. <i>Am J Perinatol</i> 37:869–872. doi:10.1055/s-0040-1710541. 8. Buonsenso D, Delogu G, Perricone C, Grossi R, Careddu A, Maio F de, Palucci I, Sanguinetti M, Valentini P, Sali M. 2020. Accuracy of QuantiFERON-TB Gold Plus Test for Diagnosis of Mycobacterium tuberculosis Infection in Children. <i>J Clin Microbiol</i> 58. doi:10.1128/JCM.00272-20. 9. Cacaci M, Martini C, Guarino C, Torelli R, Bugli F, Sanguinetti M. 2020. Graphene Oxide Coatings as Tools to Prevent Microbial Biofilm Formation on Medical Device. <i>Adv Exp Med Biol</i> 1282:21–35. doi:10.1007/5584_2019_434.

10. Cacaci M, Menchinelli G, Torelli R, Sanglard D, Sanguinetti M, Posteraro B. 2020. New Data on the In Vitro Activity of Fenticonazole against Fluconazole-Resistant Candida Species. *Antimicrob Agents Chemother* 64. doi:10.1128/AAC.01459-20.
11. Carolis E de, Marchionni F, Torelli R, Angela MG, Pagano L, Murri R, Pascale G de, Angelis G de, Sanguinetti M, Posteraro B. 2020. Comparative performance evaluation of Wako β -glucan test and Fungitell assay for the diagnosis of invasive fungal diseases. *PLoS One* 15:e0236095. doi:10.1371/journal.pone.0236095.
12. Costa S, Posteraro B, Marchetti S, Tamburrini E, Carducci B, Lanzone A, Valentini P, Buonsenso D, Sanguinetti M, Vento G, Cattani P. 2020. Excretion of SARS-CoV-2 in human breast milk. *Clin Microbiol Infect* 26:1430–1432. doi:10.1016/j.cmi.2020.05.027.
13. Di Giambenedetto S, Ciccullo A, Posteraro B, Lombardi F, Borghetti A, Sanguinetti M. 2020. Still Much to Learn About the Diagnostic Role of SARS-CoV-2 Antibody Detection. *Clin Infect Dis* 71:2299–2300. doi:10.1093/cid/ciaa532.
14. Di Vito M, Bellardi MG, Sanguinetti M, Mondello F, Girolamo A, Barbanti L, Garzoli S, Sabatino M, Ragno R, Vitali A, Palucci I, Posteraro B, Gasbarrini A, Prati GM, Aragona G, Mattarelli P, Bugli F. 2020. Potent In Vitro Activity of Citrus aurantium Essential Oil and Vitis vinifera Hydrolate Against Gut Yeast Isolates from Irritable Bowel Syndrome Patients-The Right Mix for Potential Therapeutic Use. *Nutrients* 12. doi:10.3390/nu12051329.
15. Di Vito M, Cacaci M, Barbanti L, Martini C, Sanguinetti M, Benvenuti S, Tosi G, Fiorentini L, Scozzoli M, Bugli F, Mattarelli P. 2020. Origanum vulgare Essential Oil vs. a Commercial Mixture of Essential Oils: In Vitro Effectiveness on Salmonella spp. from Poultry and Swine Intensive Livestock. *Antibiotics (Basel)* 9. doi:10.3390/antibiotics9110763.
16. Díaz-García J, Arendrup MC, Cantón R, García-Rodríguez J, Gómez A, Orden B, Parisi G, Pemán J, Posteraro B, Sanguinetti M, Da Matta DA, Colombo AL, Muñoz P, Sánchez-Carrillo C, Guinea J, Escribano P. 2020. Candidemia Candida albicans clusters have higher tendency to form biofilms than singleton genotypes†. *Med Mycol* 58:887–895. doi:10.1093/mmy/myaa002.
17. D'Inzeo T, Menchinelli G, Angelis G de, Fiori B, Liotti FM, Morandotti GA, Sanguinetti M, Posteraro B, Spanu T. 2020. Implementation of the eazypex® CSF direct panel assay for rapid laboratory diagnosis of bacterial meningitis: 32-month experience at a tertiary care university hospital. *Eur J Clin Microbiol Infect Dis* 39:1845–1853. doi:10.1007/s10096-020-03909-5.
18. Galli J, Calò L, Posteraro B, Rossi G, Sterbini FP, Paludetti G, Sanguinetti M. 2020. Pediatric oropharyngeal microbiome: Mapping in chronic tonsillitis and tonsillar hypertrophy. *Int J Pediatr Otorhinolaryngol* 139:110478. doi:10.1016/j.ijporl.2020.110478.
19. Gremese E, Cingolani A, Bosello SL, Alivernini S, Tolusso B, Perniola S, Landi F, Pompili M, Murri R, Santoliquido A, Garcovich M, Sali M, Pascale G de, Gabrielli M, Biscetti F, Montalto M, Tosoni A, Gambassi G, Rapaccini GL, Iaconelli A, Del Zileri Verme L, Petricca L, Fedele AL, Lizzio MM, Tamburrini E, Natalello G, Gigante L, Bruno D, Verardi L, Taddei E, Calabrese A, Lombardi F, Bernabei R, Cauda R, Franceschi F, Landolfi R, Richeldi L, Sanguinetti M, Fantoni M, Antonelli M, Gasbarrini A. 2020. Sarilumab use in severe SARS-CoV-2 pneumonia. *EClinicalMedicine* 27:100553. doi:10.1016/j.eclinm.2020.100553.
20. Guérin F, Lallemand C, Goudergues B, Isnard C, Sanguinetti M, Cacaci M, Torelli R, Cattoir V, Giard J-C. 2020. Landscape of in vivo Fitness-Associated Genes of Enterobacter cloacae Complex. *Front Microbiol* 11:1609. doi:10.3389/fmicb.2020.01609.
21. Guinea J, Arendrup MC, Cantón R, Cantón E, García-Rodríguez J, Gómez A, de la Pedrosa, Elia Gómez G, Hare RK, Orden B, Sanguinetti M, Pemán J, Posteraro B, Ruiz-Gaitán A, Parisi G, Da Matta DA, Colombo AL, Sánchez-Carrillo C, Reigadas E, Muñoz P, Escribano P. 2020. Genotyping Reveals High Clonal Diversity and Widespread Genotypes of Candida Causing Candidemia at Distant Geographical Areas. *Front Cell Infect Microbiol* 10:166. doi:10.3389/fcimb.2020.00166.
22. Ianiro G, Bibbò S, Masucci L, Quaranta G, Porcari S, Settanni CR, Lopetuso LR, Fantoni M, Sanguinetti M, Gasbarrini A, Cammarota G. 2020. Maintaining standard volumes, efficacy and safety, of fecal microbiota transplantation for C. difficile infection during the COVID-19 pandemic: A prospective cohort study. *Dig Liver Dis*. doi:10.1016/j.dld.2020.09.004.
23. Ianiro G, Mullish BH, Kelly CR, Kassam Z, Kuijper EJ, Ng SC, Iqbal TH, Allegretti JR, Bibbò S, Sokol H, Zhang F, Fischer M, Costello SP, Keller JJ, Masucci L, van Prehn J, Quaranta G, Quraishi MN, Segal J, Kao D, Satokari R, Sanguinetti M, Tilg H, Gasbarrini A, Cammarota G. 2020. Reorganisation of faecal microbiota transplant services during the COVID-19 pandemic. *Gut* 69:1555–1563. doi:10.1136/gutjnl-2020-321829.
24. Ianiro G, Mullish BH, Kelly CR, Sokol H, Kassam Z, Ng SC, Fischer M, Allegretti JR, Masucci L, Zhang F, Keller J, Sanguinetti M, Costello SP, Tilg H, Gasbarrini A, Cammarota G. 2020. Screening of faecal microbiota transplant donors during the COVID-19 outbreak: suggestions for urgent updates from an international expert panel. *Lancet Gastroenterol Hepatol* 5:430–432. doi:10.1016/S2468-1253(20)30082-0.
25. Ianiro G, Porcari S, Settanni CR, Bibbò S, Ponziani FR, Zileri Dal Verme L, Franceschi F, Cammarota G, Gasbarrini A. 2020. Letter: prevalence and patterns of gastrointestinal symptoms in a large Western cohort of patients with COVID-19. *Aliment Pharmacol Ther* 52:902–903. doi:10.1111/apt.15946.
26. Ianiro G, Rossi E, Thomas AM, Schinzari G, Masucci L, Quaranta G, Settanni CR, Lopetuso LR, Armanini F, Blanco-Míguez A, Asnicar F, Consolandi C, Iacovelli R, Sanguinetti M, Tortora G, Gasbarrini A, Segata N, Cammarota G. 2020. Faecal microbiota transplantation for the treatment of diarrhoea induced by tyrosine-kinase inhibitors in patients with metastatic renal cell carcinoma. *Nat Commun* 11:4333. doi:10.1038/s41467-020-18127-y.
27. Keller JJ, Ooijevaar RE, Hvas CL, Terveer EM, Lieberknecht SC, Högenauer C, Arkkila P, Sokol H, Gridnyev O, Mégraud F, Kump PK, Nakov R, Goldenberg SD, Satokari R, Tkatch S, Sanguinetti M, Cammarota G, Dorofeev A, Gubska O, Ianiro G, Mattila E, Arasaradnam RP, Sarin SK, Sood A, Putignani L, Alric L, Baunwall SM, Kupcinkas J, Link A, Goorhuis AG, Verspaget HW, Ponsioen C, Hold GL, Tilg H, Kassam Z, Kuijper EJ, Gasbarrini A, Mulder CJ, Williams HR, Vehreschild MJ. 2020. A standardised model for stool banking for faecal microbiota transplantation: a consensus report from a multidisciplinary UEG working group. *United European Gastroenterol J*:2050640620967898. doi:10.1177/2050640620967898.
28. Landi F, Gremese E, Rota E, Carfi A, Benvenuto F, Ciciarello F, Lo Monaco MR, Martone AM, Pagano F, Paglionico A, Petricca L, Rocchi S, Trito M, Sanguinetti M, Bernabei R. 2020. Positive RT-PCR nasopharyngeal swab in patients recovered from COVID-19 disease: When does quarantine really end? *J Infect*:4814. doi:10.1016/j.jinf.2020.08.034.
29. Laverde D, Romero-Saavedra F, Argunov DA, Enotarpi J, Krylov VB, Kalfopoulou E, Martini C, Torelli R, van der Marel, G A, Sanguinetti M, Codée JDC, Nifantiev NE, Huebner J. 2020. Synthetic Oligomers Mimicking Capsular Polysaccharide

- Diheteroglycan are Potential Vaccine Candidates against Encapsulated Enterococcal Infections. *ACS Infect Dis* 6:1816–1826. doi:10.1021/acscinfecdis.0c00063.
30. Liotti FM, Angelis G de, Speciale D, Morandotti GA, Genovese O, Sanguinetti M, Posteraro B. 2020. Bordetella pertussis DNA detected in a tracheostomized child blood before seroconversion. *Eur J Clin Microbiol Infect Dis*. doi:10.1007/s10096-020-03988-4.
 31. Liotti FM, Menchinelli G, Lalle E, Palucci I, Marchetti S, Colavita F, La Sorda M, Sberna G, Bordi L, Sanguinetti M, Cattani P, Capobianchi MR, Posteraro B. 2020. Performance of a novel diagnostic assay for rapid SARS-CoV-2 antigen detection in nasopharynx samples. *Clin Microbiol Infect*. doi:10.1016/j.cmi.2020.09.030.
 32. Liotti FM, Menchinelli G, Marchetti S, Morandotti GA, Sanguinetti M, Posteraro B, Cattani P. 2020. Evaluating the newly developed BioFire COVID-19 test for SARS-CoV-2 molecular detection. *Clin Microbiol Infect* 26:1699–1700. doi:10.1016/j.cmi.2020.07.026.
 33. Liotti FM, Menchinelli G, Marchetti S, Morandotti GA, Sanguinetti M, Posteraro B, Cattani P. 2020. Evaluation of three commercial assays for SARS-CoV-2 molecular detection in upper respiratory tract samples. *Eur J Clin Microbiol Infect Dis*:1–9. doi:10.1007/s10096-020-04025-0.
 34. Liotti FM, Menchinelli G, Marchetti S, Posteraro B, Landi F, Sanguinetti M, Cattani P. 2020. Assessment of SARS-CoV-2 RNA Test Results Among Patients Who Recovered From COVID-19 With Prior Negative Results. *JAMA Intern Med*. doi:10.1001/jamainternmed.2020.7570.
 35. Lo Cascio G, Vincenzi M, Soldani F, Carolis E de, Maccacaro L, Sorrentino A, Nadali G, Cesaro S, Sommavilla M, Niero V, Naso L, Grancini A, Azzini AM, Sanguinetti M, Tacconelli E, Cornaglia G. 2020. Outbreak of *Saprochaete clavata* Sepsis in Hematology Patients: Combined Use of MALDI-TOF and Sequencing Strategy to Identify and Correlate the Episodes. *Front Microbiol* 11:84. doi:10.3389/fmicb.2020.00084.
 36. Luigetti M, Iorio R, Bentivoglio AR, Tricoli L, Riso V, Marotta J, Piano C, Primiano G, Del Zileri Verme L, Lo Monaco MR, Calabresi P. 2020. Assessment of neurological manifestations in hospitalized patients with COVID-19. *Eur J Neurol*. doi:10.1111/ene.14444.
 37. Maio F de, Lo Cascio E, Babini G, Sali M, Della Longa S, Tilocca B, Roncada P, Arcovito A, Sanguinetti M, Scambia G, Urbani A. 2020. Improved binding of SARS-CoV-2 Envelope protein to tight junction-associated PALS1 could play a key role in COVID-19 pathogenesis. *Microbes Infect*. doi:10.1016/j.micinf.2020.08.006.
 38. Maio F de, Palmieri V, Santarelli G, Perini G, Salustri A, Palucci I, Sali M, Gervasoni J, Primiano A, Ciasca G, Sanguinetti M, Spirito M de, Delogu G, Papi M. 2020. Graphene Oxide-Linezolid Combination as Potential New Anti-Tuberculosis Treatment. *Nanomaterials (Basel)* 10. doi:10.3390/nano10081431.
 39. Maio F de, Posteraro B, Ponziani FR, Cattani P, Gasbarrini A, Sanguinetti M. 2020. Nasopharyngeal Microbiota Profiling of SARS-CoV-2 Infected Patients. *Biol Proced Online* 22:18. doi:10.1186/s12575-020-00131-7.
 40. Martellacci L, Quaranta G, Fancello G, D'Addona A, Sanguinetti M, Patini R, Masucci L. 2020. Characterizing Peri-Implant and Sub-Gingival Microbiota through Culturomics. First Isolation of Some Species in the Oral Cavity. A Pilot Study. *Pathogens* 9. doi:10.3390/pathogens9050365.
 41. Martini C, Longo F, Castagnola R, Marigo L, Grande NM, Cordaro M, Cacaci M, Papi M, Palmieri V, Bugli F, Sanguinetti M. 2020. Antimicrobial and Antibiofilm Properties of Graphene Oxide on *Enterococcus faecalis*. *Antibiotics (Basel)* 9. doi:10.3390/antibiotics9100692.
 42. Martini C, Torelli R, Groot T de, Carolis E de, Morandotti GA, Angelis G de, Posteraro B, Meis JF, Sanguinetti M. 2020. Prevalence and Clonal Distribution of Azole-Resistant *Candida parapsilosis* Isolates Causing Bloodstream Infections in a Large Italian Hospital. *Front Cell Infect Microbiol* 10:232. doi:10.3389/fcimb.2020.00232.
 43. Monno R, Brindicci G, Romeo O, Carolis E de, Criseo G, Sanguinetti M, Fumarola L, Ingravalle G, Mariani M, Monno L. 2020. Infection caused by *Sporothrix schenckii*: an autochthonous case in Bari, Southern Italy. *Eur J Clin Microbiol Infect Dis* 39:2457–2460. doi:10.1007/s10096-020-03939-z.
 44. Murri R, Palazzolo C, Giovannenze F, Taccari F, Camici M, Spanu T, Posteraro B, Sanguinetti M, Cauda R, Fantoni M. 2020. Day 10 Post-Prescription Audit Optimizes Antibiotic Therapy in Patients with Bloodstream Infections. *Antibiotics (Basel)* 9. doi:10.3390/antibiotics9080437.
 45. Natalello G, Bosello SL, Paroni Sterbini F, Posteraro B, Lorenzis E de, Canestrari GB, Gigante L, Verardi L, Ferraccioli G, Sanguinetti M, Gremese E. 2020. Gut microbiota analysis in systemic sclerosis according to disease characteristics and nutritional status. *Clin Exp Rheumatol* 38 Suppl 125:73–84.
 46. Ojetti V, Saviano A, Covino M, Acampora N, Troiani E, Franceschi F. 2020. COVID-19 and intestinal inflammation: Role of fecal calprotectin. *Dig Liver Dis* 52:1231–1233. doi:10.1016/j.dld.2020.09.015.
 47. Orofino F, Truglio GI, Fiorucci D, D'Agostino I, Borgini M, Poggialini F, Zamperini C, Dreassi E, Maccari L, Torelli R, Martini C, Bernabei M, Meis JF, Khandelwal NK, Prasad R, Sanguinetti M, Bugli F, Botta M. 2020. In vitro characterization, ADME analysis, and histological and toxicological evaluation of BM1, a macrocyclic amidinourea active against azole-resistant *Candida* strains. *Int J Antimicrob Agents* 55:105865. doi:10.1016/j.ijantimicag.2019.105865.
 48. Pascale G de, Lisi L, Ciotti GMP, Vallecoccia MS, Cutuli SL, Cascarano L, Gelormini C, Bello G, Montini L, Carelli S, Di Gravio V, Tumbarello M, Sanguinetti M, Navarra P, Antonelli M. 2020. Pharmacokinetics of high-dose tigecycline in critically ill patients with severe infections. *Ann Intensive Care* 10:94. doi:10.1186/s13613-020-00715-2.
 49. Pascale G de, Posteraro B, D'Arrigo S, Spinazzola G, Gaspari R, Bello G, Montini LM, Cutuli SL, Grieco DL, Di Gravio V, Angelis G de, Torelli R, Carolis E de, Tumbarello M, Sanguinetti M, Antonelli M. 2020. (1,3)- β -D-Glucan-based empirical antifungal interruption in suspected invasive candidiasis: a randomized trial. *Crit Care* 24:550. doi:10.1186/s13054-020-03265-y.
 50. Pieralli F, Dentali F, Giusti M, Ciarambino T, Mazzone A, Concia E, Sanguinetti M, Nallino MG, Morana I, Santini C, Gussoni G, Zagari E, Manfellotto D. 2020. Clinical characteristics, management and outcome of patients with invasive candidiasis hospitalized in Internal Medicine Units: findings from a registry by the Italian Scientific Society FADOI. *Infection*. doi:10.1007/s15010-020-01535-z.
 51. Ponziani FR, Scaldaferrì F, Siena M de, Mangiola F, Matteo MV, Pecere S, Petito V, Sterbini FP, Lopetuso LR, Masucci L, Cammarota G, Sanguinetti M, Gasbarrini A. 2020. Increased Faecalibacterium abundance is associated with clinical improvement in patients receiving rifaximin treatment. *Benef Microbes* 11:519–525. doi:10.3920/BM2019.0171.

52. Posteraro B, Marchetti S, Romano L, Santangelo R, Morandotti GA, Sanguinetti M, Cattani P. 2020. Clinical microbiology laboratory adaptation to COVID-19 emergency: experience at a large teaching hospital in Rome, Italy. *Clin Microbiol Infect* 26:1109–1111. doi:10.1016/j.cmi.2020.04.016.
53. Posteraro B, Carolis E de, Criscuolo M, Ballanti S, Angelis G de, Del Principe MI, Delia M, Fracchiolla N, Marchesi F, Nadali G, Picardi M, Piccioni AL, Verga L, Candoni A, Busca A, Sanguinetti M, Pagano L. 2020. Candidaemia in haematological malignancy patients from a SEIFEM study: Epidemiological patterns according to antifungal prophylaxis. *Mycoses* 63:900–910. doi:10.1111/myc.13130.
54. Posteraro B, Torelli R, Vella A, Leone PM, Angelis G de, Carolis E de, Ventura G, Sanguinetti M, Fantoni M. 2020. Pan-Echinocandin-Resistant *Candida glabrata* Bloodstream Infection Complicating COVID-19: A Fatal Case Report. *J Fungi (Basel)* 6. doi:10.3390/jof6030163.
55. Quaranta G, Fancello G, Ianiro G, Graffeo R, Gasbarrini A, Cammarota G, Sanguinetti M, Masucci L. 2020. Laboratory handling practice for faecal microbiota transplantation. *J Appl Microbiol* 128:893–898. doi:10.1111/jam.14522.
56. Ruggiero A, Sanguinetti M, Gatto A, Attinà G, Chiaretti A. 2020. Diagnosis of COVID-19 infection in children: Less nasopharyngeal swabs, more saliva. *Acta Paediatr* 109:1913–1914. doi:10.1111/apa.15397.
57. Sanguinetti M, Seme K, Poljak M. 2020. Mobile microbiology: an evolving concept in diagnosis of infectious diseases. *Clin Microbiol Infect* 26:409–410. doi:10.1016/j.cmi.2019.12.016.
58. Santis M de, Apicella M, Luca C de, D'oria L, Valentini P, Sanguinetti M, Lanzone A, Masini L, Santangelo R. 2020. Negative Cytomegalovirus at birth after prenatal diagnosis of infection and Valacyclovir treatment: false amniotic fluid positivity or viral negativization after prenatal therapy? *Minerva Ginecol* 72:179–181. doi:10.23736/S0026-4784.20.04517-7.
59. Santis M de, Apicella M, Luca C de, D'oria L, Valentini P, Sanguinetti M, Lanzone A, Scambia G, Santangelo R, Masini L. 2020. Valacyclovir in primary maternal CMV infection for prevention of vertical transmission: A case-series. *J Clin Virol* 127:104351. doi:10.1016/j.jcv.2020.104351.
60. Tamburrano A, Vallone D, Carrozza C, Urbani A, Sanguinetti M, Nicolotti N, Cambieri A, Laurenti P. 2020. Evaluation and cost estimation of laboratory test overuse in 43 commonly ordered parameters through a Computerized Clinical Decision Support System (CCDSS) in a large university hospital. *PLoS One* 15:e0237159. doi:10.1371/journal.pone.0237159.
61. Tilocca B, Soggiu A, Musella V, Britti D, Sanguinetti M, Urbani A, Roncada P. 2020. Molecular basis of COVID-19 relationships in different species: a one health perspective. *Microbes Infect* 22:218–220. doi:10.1016/j.micinf.2020.03.002.
62. Tilocca B, Soggiu A, Sanguinetti M, Babini G, Maio F de, Britti D, Zecconi A, Bonizzi L, Urbani A, Roncada P. 2020. Immunoinformatic analysis of the SARS-CoV-2 envelope protein as a strategy to assess cross-protection against COVID-19. *Microbes Infect* 22:182–187. doi:10.1016/j.micinf.2020.05.013.
63. Tilocca B, Soggiu A, Sanguinetti M, Musella V, Britti D, Bonizzi L, Urbani A, Roncada P. 2020. Comparative computational analysis of SARS-CoV-2 nucleocapsid protein epitopes in taxonomically related coronaviruses. *Microbes Infect* 22:188–194. doi:10.1016/j.micinf.2020.04.002.
64. Amalfitano A, Martini C, Nocca G, Papi M, Spirito M de, Sanguinetti M, Vitali A, Bugli F, Arcovito A. 2019. A protein chimera self-assembling unit for drug delivery. *Biotechnol Prog* 35:e2769. doi:10.1002/btpr.2769.
65. Angelis G de, Posteraro B, Menchinelli G, Liotti FM, Spanu T, Sanguinetti M. 2019. Antimicrobial susceptibility testing of pathogens isolated from blood culture: a performance comparison of Accelerate Pheno™ and VITEK® 2 systems with the broth microdilution method. *J Antimicrob Chemother* 74:i24-i31. doi:10.1093/jac/dky532.
66. Bassetti M, Scudeller L, Giacobbe DR, Lamoth F, Righi E, Zuccaro V, Grecchi C, Rebuffi C, Akova M, Alastruey-Izquierdo A, Arikian-Akdagli S, Azoulay E, Blot SI, Cornely OA, Lass-Flörl C, Koehler P, Cuenca-Estrella M, Lange DW de, Rosa FG de, Waele JJ de, Dimopoulos G, Garnacho-Montero J, Hoenigl M, Kanj SS, Maertens J, Martin-Loeches I, Muñoz P, Kullberg BJ, Agvald-Ohman C, Poulakou G, Rello J, Sanguinetti M, Taccone FS, Timsit J-F, Torres A, Vazquez JA, Calandra T. 2019. Developing definitions for invasive fungal diseases in critically ill adult patients in intensive care units. Protocol of the FUNgal infections Definitions in ICU patients (FUNDICU) project. *Mycoses* 62:310–319. doi:10.1111/myc.12869.
67. Belvis AG de, Barbara A, Giubbini G, Traglia S, Angioletti C, Ianiro G, Masucci L, Sanguinetti M, Laurenti P, Cambieri A, Gasbarrini A, Ricciardi W, Cammarota G. 2019. Impact evaluation of a Critical Pathway for patients with *Clostridium difficile* infection: A pre-post analysis in a Third Level Referral Center. *Int J Infect Dis* 80:105–110. doi:10.1016/j.ijid.2019.01.025.
68. Buonocore F, Picchiatti S, Porcelli F, Della Pelle G, Olivieri C, Poerio E, Bugli F, Menchinelli G, Sanguinetti M, Bresciani A, Gennari N, Taddei AR, Fausto AM, Scapigliati G. 2019. Fish-derived antimicrobial peptides: Activity of a chionodracine mutant against bacterial models and human bacterial pathogens. *Dev Comp Immunol* 96:9–17. doi:10.1016/j.dci.2019.02.012.
69. Carolis E de, Marchionni F, Torelli R, Posteraro P, Pascale G de, Carelli S, Sanguinetti M, Posteraro B. 2019. Comparable Serum and Plasma 1,3-β-d-Glucan Values Obtained Using the Wako β-Glucan Test in Patients with Probable or Proven Fungal Diseases. *J Clin Microbiol* 57. doi:10.1128/JCM.00149-19.
70. Carolis E de, Soldini S, La Rosa M, Nucci F, Posteraro B, Sanguinetti M. 2019. BIOF-HILO Assay: A New MALDI-TOF Mass Spectrometry Based Method for Discriminating Between High- and Low-Biofilm-Producing *Candida parapsilosis* Isolates. *Front Microbiol* 10:2046. doi:10.3389/fmicb.2019.02046.
71. Corcione S, D'Avolio A, Pasero D, Trentalange A, Pagani N, Sanguinetti M, Rosa FG de. 2019. Acquisition of FKS2 mutation after echinocandin treatment of infective endocarditis by *Candida glabrata*. *Infez Med* 27:328–331.
72. Cornu M, Sendid B, Mery A, François N, Mikulska M, Letscher-Bru V, Carolis E de, Damonti L, Titecat M, Bochud P-Y, Alanio A, Sanguinetti M, Viscoli C, Herbrecht R, Guerardel Y, Poulain D. 2019. Evaluation of Mass Spectrometry-Based Detection of Panfungal Serum Disaccharide for Diagnosis of Invasive Fungal Infections: Results from a Collaborative Study Involving Six European Clinical Centers. *J Clin Microbiol* 57. doi:10.1128/JCM.01867-18.
73. Eneide C, Castagnola R, Martini C, Grande NM, Bugli F, Patini R, Cordaro M, Sanguinetti M, Olivi G, Isola G, Marigo L. 2019. Antibiofilm Activity of Three Different Irrigation Techniques: An in Vitro Study. *Antibiotics (Basel)* 8. doi:10.3390/antibiotics8030112.
74. Espinel-Ingroff A, Tumidge J, Alastruey-Izquierdo A, Botterel F, Canton E, Castro C, Chen Y-C, Chen Y, Chryssanthou E, Dannaoui E, Garcia-Effron G, Gonzalez GM, Govender NP, Guinea J, Kidd S, Lackner M, Lass-Flörl C, Linares-Sicilia MJ, López-Soria L,

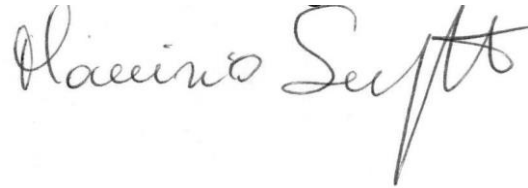
- Magobo R, Pelaez T, Quindós G, Rodriguez-Iglesia MA, Ruiz MA, Sánchez-Reus F, Sanguinetti M, Shields R, Szweda P, Tortorano A, Wengenack NL, Bramati S, Cavanna C, DeLuca C, Gelmi M, Grancini A, Lombardi G, Meletiadiis J, Negri CE, Passera M, Peman J, Prigitano A, Sala E, Tejada M. 2019. Method-Dependent Epidemiological Cutoff Values for Detection of Triazole Resistance in *Candida* and *Aspergillus* Species for the Sensititre YeastOne Colorimetric Broth and Etest Agar Diffusion Methods. *Antimicrob Agents Chemother* 63. doi:10.1128/AAC.01651-18.
75. Falcone M, Tiseo G, Iraci F, Raponi G, Goldoni P, Delle Rose D, Santino I, Carfagna P, Murri R, Fantoni M, Fontana C, Sanguinetti M, Farcomeni A, Antonelli G, Aceti A, Mastroianni C, Andreoni M, Cauda R, Petrosillo N, Venditti M. 2019. Risk factors for recurrence in patients with *Clostridium difficile* infection due to 027 and non-027 ribotypes. *Clin Microbiol Infect* 25:474–480. doi:10.1016/j.cmi.2018.06.020.
76. Fallacara AL, Zamperini C, Podolski-Renić A, Dinić J, Stanković T, Stepanović M, Mancini A, Rango E, Iovenitti G, Molinari A, Bugli F, Sanguinetti M, Torelli R, Martini M, Maccari L, Valoti M, Dreassi E, Botta M, Pešić M, Schenone S. 2019. A New Strategy for Glioblastoma Treatment: In Vitro and In Vivo Preclinical Characterization of Si306, a Pyrazolo3,4-dPyrimidine Dual Src/P-Glycoprotein Inhibitor. *Cancers (Basel)* 11. doi:10.3390/cancers11060848.
77. Fantoni M, Taddei E, Cauda R, Antonelli Incalzi R, Capone A, Cortese F, Sanguinetti M, Spandonaro F, Urbani A, Murri R. 2019. The role of procalcitonin outside of the Intensive Care Unit (ICU): a multidisciplinary approach. *Eur Rev Med Pharmacol Sci* 23:2978–2985. doi:10.26355/eurev_201904_17579.
78. Fiori B, D'Inzeo T, Posteraro B, Menchinelli G, Liotti FM, Angelis G de, Maio F de, Fantoni M, Murri R, Scoppettuolo G, Ventura G, Tumbarello M, Pennestrì F, Taccari F, Sanguinetti M, Spanu T. 2019. Direct use of eazyplex® SuperBug CRE assay from positive blood cultures in conjunction with inpatient infectious disease consulting for timely appropriate antimicrobial therapy in *Escherichia coli* and *Klebsiella pneumoniae* bloodstream infections. *Infect Drug Resist* 12:1055–1062. doi:10.2147/IDR.S206323.
79. Giacobbe DR, Signori A, Tumbarello M, Ungaro R, Sarteschi G, Furfaro E, Mikulska M, Sanguinetti M, Posteraro B, Losito AR, Pascale G de, Del Bono V, Viscoli C. 2019. Desirability of outcome ranking (DOOR) for comparing diagnostic tools and early therapeutic choices in patients with suspected candidemia. *Eur J Clin Microbiol Infect Dis* 38:413–417. doi:10.1007/s10096-018-3441-1.
80. Giordano L, Fiori B, D'Inzeo T, Parisi G, Liotti FM, Menchinelli G, Angelis G de, Maio F de, Luzzaro F, Sanguinetti M, Posteraro B, Spanu T. 2019. Simplified Testing Method for Direct Detection of Carbapenemase-Producing Organisms from Positive Blood Cultures Using the NG-Test Carba 5 Assay. *Antimicrob Agents Chemother* 63. doi:10.1128/AAC.00550-19.
81. Ianiro G, Murri R, Sciumè GD, Impagnatiello M, Masucci L, Ford AC, Law GR, Tilg H, Sanguinetti M, Cauda R, Gasbarrini A, Fantoni M, Cammarota G. 2019. Incidence of Bloodstream Infections, Length of Hospital Stay, and Survival in Patients With Recurrent *Clostridioides difficile* Infection Treated With Fecal Microbiota Transplantation or Antibiotics: A Prospective Cohort Study. *Ann Intern Med* 171:695–702. doi:10.7326/M18-3635.
82. Inchingolo R, Pasciuto G, Magnini D, Cavalletti M, Scoppettuolo G, Montemurro G, Smargiassi A, Torelli R, Sanguinetti M, Spanu T, Corbo GM, Richeldi L. 2019. Educational interventions alone and combined with port protector reduce the rate of central venous catheter infection and colonization in respiratory semi-intensive care unit. *BMC Infect Dis* 19:215. doi:10.1186/s12879-019-3848-z.
83. Liotti FM, Posteraro B, Mannu F, Carta F, Pantaleo A, Angelis G de, Menchinelli G, Spanu T, Fiori PL, Turrini F, Sanguinetti M. 2019. Development of a Multiplex PCR Platform for the Rapid Detection of Bacteria, Antibiotic Resistance, and *Candida* in Human Blood Samples. *Front Cell Infect Microbiol* 9:389. doi:10.3389/fcimb.2019.00389.
84. Martin-Loeches I, Antonelli M, Cuenca-Estrella M, Dimopoulos G, Einav S, Waele JJ de, Garnacho-Montero J, Kanj SS, Machado FR, Montravers P, Sakr Y, Sanguinetti M, Timsit J-F, Bassetti M. 2019. ESICM/ESCMID task force on practical management of invasive candidiasis in critically ill patients. *Intensive Care Med* 45:789–805. doi:10.1007/s00134-019-05599-w.
85. Masucci L, Nicolotti N, Graffeo R, Tamburrano A, Archibusacci CM, Nagel D, Quaranta G, Eisendle K, Primus S, Romano L, Mazzella P, Posteraro B, Cammarota G, Sanguinetti M. 2019. *Clostridium difficile*: trend in an Italian Tertiary Care Hospital during fifteen years, 2002-2016. *Minerva Med* 110:168–171. doi:10.23736/S0026-4806.18.05740-3.
86. Menchinelli G, Liotti FM, Fiori B, Angelis G de, D'Inzeo T, Giordano L, Posteraro B, Sabbatucci M, Sanguinetti M, Spanu T. 2019. In vitro Evaluation of BACT/ALERT® VIRTUO®, BACT/ALERT 3D®, and BACTEC™ FX Automated Blood Culture Systems for Detection of Microbial Pathogens Using Simulated Human Blood Samples. *Front Microbiol* 10:221. doi:10.3389/fmicb.2019.00221.
87. Menchinelli G, Liotti FM, Giordano L, Angelis G de, Sanguinetti M, Spanu T, Posteraro B. 2019. Efficient Inactivation of Clinically Relevant Antimicrobial Drug Concentrations by Bact/Alert or Bactec Resin-Containing Media in Simulated Adult Blood Cultures. *Antimicrob Agents Chemother* 63. doi:10.1128/AAC.00420-19.
88. Mikulska M, Furfaro E, Carolis E de, Drago E, Pulzato I, Borghesi ML, Zappulo E, Raiola AM, Di Grazia C, Del Bono V, Cittadini G, Angelucci E, Sanguinetti M, Viscoli C. 2019. Use of *Aspergillus fumigatus* real-time PCR in bronchoalveolar lavage samples (BAL) for diagnosis of invasive aspergillosis, including azole-resistant cases, in high risk haematology patients: the need for a combined use with galactomannan. *Med Mycol* 57:987–996. doi:10.1093/mmy/myz002.
89. Murri R, Camici M, Posteraro B, Giovannenze F, Taccari F, Ventura G, Scoppettuolo G, Sanguinetti M, Cauda R, Fantoni M. 2019. Performance evaluation of the (1,3)-β-D-glucan detection assay in non-intensive care unit adult patients. *Infect Drug Resist* 12:19–24. doi:10.2147/IDR.S181489.
90. Palucci I, Maulucci G, Maio F de, Sali M, Romagnoli A, Petrone L, Fimia GM, Sanguinetti M, Goletti D, Spirito M de, Piacentini M, Delogu G. 2019. Inhibition of Transglutaminase 2 as a Potential Host-Directed Therapy Against *Mycobacterium tuberculosis*. *Front Immunol* 10:3042. doi:10.3389/fimmu.2019.03042.
91. Parisio EM, Camarlinghi G, Nardone M, Carolis E de, Mattei R, Sanguinetti M. 2019. Gastrointestinal basidiobolomycosis in a patient suffering from duodenal ulcer with perforation: First case report from Italy. *New Microbiol* 42:125–128.
92. Pérez-Hansen A, Lass-Flörl C, Lackner M. 2019. Antifungal susceptibility profiles of rare ascomycetous yeasts. *J Antimicrob Chemother* 74:2649–2656. doi:10.1093/jac/dkz231.
93. Petito V, Graziani C, Lopetuso LR, Fossati M, Battaglia A, Arena V, Scannone D, Quaranta G, Quagliariello A, Del Chierico F, Putignani L, Masucci L, Sanguinetti M, Sgambato A, Gasbarrini A, Scaldaferrì F. 2019. Anti-tumor necrosis factor α therapy associates to type 17 helper T lymphocytes immunological shift and significant microbial changes in dextran sodium sulphate

- colitis. *World J Gastroenterol* 25:1465–1477. doi:10.3748/wjg.v25.i12.1465.
94. Ponziani FR, Bhoori S, Castelli C, Putignani L, Rivoltini L, Del Chierico F, Sanguinetti M, Morelli D, Paroni Sterbini F, Petito V, Reddel S, Calvani R, Camisaschi C, Picca A, Tuccitto A, Gasbarrini A, Pompili M, Mazzaferro V. 2019. Hepatocellular Carcinoma Is Associated With Gut Microbiota Profile and Inflammation in Nonalcoholic Fatty Liver Disease. *Hepatology* 69:107–120. doi:10.1002/hep.30036.
 95. Posteraro P, Gasparoli C, Errico FM, Massaria G, Sanguinetti M, Posteraro B. 2019. Off-site versus on-site clinical microbiology laboratory: a 2-year comparison study of blood culture result reporting. *Clin Microbiol Infect* 25:1441–1442. doi:10.1016/j.cmi.2019.06.021.
 96. Posteraro P, Maio F de, Menchinelli G, Palucci I, Errico FM, Carbone M, Sanguinetti M, Gasbarrini A, Posteraro B. 2019. First bloodstream infection caused by *Prevotella copri* in a heart failure elderly patient with *Prevotella*-dominated gut microbiota: a case report. *Gut Pathog* 11:44. doi:10.1186/s13099-019-0325-6.
 97. Potenza L, Chitasombat MN, Klimko N, Bettelli F, Dragonetti G, Del Principe MI, Nucci M, Busca A, Fracchiolla N, Sciumè M, Spolzino A, Delia M, Mancini V, Nadali GP, Dargenio M, Shadrivova O, Bacchelli F, Aversa F, Sanguinetti M, Luppi M, Kontoyiannis DP, Pagano L. 2019. *Rhodotorula* infection in haematological patient: Risk factors and outcome. *Mycoses* 62:223–229. doi:10.1111/myc.12875.
 98. Romero-Saavedra F, Laverde D, Kalfopoulou E, Martini C, Torelli R, Martinez-Matamoros D, Sanguinetti M, Huebner J. 2019. Conjugation of Different Immunogenic Enterococcal Vaccine Target Antigens Leads to Extended Strain Coverage. *J Infect Dis* 220:1589–1598. doi:10.1093/infdis/jiz357.
 99. Sanguinetti M, Iriarte A, Amillis S, Marín M, Musto H, Ramón A. 2019. A pair of non-optimal codons are necessary for the correct biosynthesis of the *Aspergillus nidulans* urea transporter, *UreA*. *R Soc Open Sci* 6:190773. doi:10.1098/rsos.190773.
 100. Sanguinetti M. 2019. The importance of rapid diagnosis for multidrug-resistant *Candida*: an interview with Maurizio Sanguinetti. *Future Microbiol* 14:1011–1012. doi:10.2217/fmb-2019-0198.
 101. Sanguinetti M, Cantón E, Torelli R, Tumietto F, Espinel-Ingroff A, Posteraro B. 2019. In Vitro Activity of Fenticonazole against *Candida* and Bacterial Vaginitis Isolates Determined by Mono- or Dual-Species Testing Assays. *Antimicrob Agents Chemother* 63. doi:10.1128/AAC.02693-18.
 102. Santis M de, Luca C de, Apicella M, D'oria L, Lanzone A, Sanguinetti M, Valentini P, Scambia G, Masini L, Santangelo R. 2019. Prenatal valacyclovir treatment of fetal cytomegalovirus infection: A case series. *J Infect* 79:462–470. doi:10.1016/j.jinf.2019.08.015.
 103. Scudeller L, Rodríguez-Baño J, Zinkernagel A, Tacconelli E, Akova M, Friedrich AW, Sanguinetti M, Paul M, Poljak M. 2019. ESCMID white paper: a guide on ESCMID guidance documents. *Clin Microbiol Infect* 25:155–162. doi:10.1016/j.cmi.2018.08.005.
 104. Sidoti F, Piralla A, Costa C, Scarasciulli ML, Calvario A, Conaldi PG, Paba P, Perno CF, Gaeta A, Antonelli G, Sodano G, Santangelo R, Sanguinetti M, Vatteroni ML, Barzon L, Palù G, Abbate I, Capobianchi MR, Piccirilli G, Lazzarotto T, Baldanti F, Cavallo R. 2019. Collaborative national multicenter for the identification of conversion factors from copies/mL to international units/mL for the normalization of HCMV DNA load. *Diagn Microbiol Infect Dis* 95:152–158. doi:10.1016/j.diagmicrobio.2019.05.012.
 105. Tacconelli E, Mazzaferri F, Smet AM de, Bragantini D, Eggimann P, Huttner BD, Kuijper EJ, Lucet J-C, Mutters NT, Sanguinetti M, Schwaber MJ, Souli M, Torre-Cisneros J, Price JR, Rodríguez-Baño J. 2019. ESCMID-EUCIC clinical guidelines on decolonization of multidrug-resistant Gram-negative bacteria carriers. *Clin Microbiol Infect* 25:807–817. doi:10.1016/j.cmi.2019.01.005.
 106. Tumietto F, Posteraro B, Sanguinetti M. 2019. Looking for appropriateness in the cure of mixed vaginitis: the role of fenticonazole as an empiric treatment. *Future Microbiol* 14:1349–1355. doi:10.2217/fmb-2019-0189.
 107. Angelis G de, Fiori B, Menchinelli G, D'Inzeo T, Liotti FM, Morandotti GA, Sanguinetti M, Posteraro B, Spanu T. 2018. Incidence and antimicrobial resistance trends in bloodstream infections caused by *ESKAPE* and *Escherichia coli* at a large teaching hospital in Rome, a 9-year analysis (2007-2015). *Eur J Clin Microbiol Infect Dis* 37:1627–1636. doi:10.1007/s10096-018-3292-9.
 108. Angelis G de, Posteraro B, Carolis E de, Menchinelli G, Franceschi F, Tumbarello M, Pascale G de, Spanu T, Sanguinetti M. 2018. T2Bacteria magnetic resonance assay for the rapid detection of *ESKAPEc* pathogens directly in whole blood. *J Antimicrob Chemother* 73:iv20-iv26. doi:10.1093/jac/dky049.
 109. Bassetti M, Carnelutti A, Peghin M, Aversa F, Barchiesi F, Girmenia C, Pagano L, Sanguinetti M, Tortorano AM, Montagna MT, Viale P, Viscoli C, Denning DW. 2018. Estimated burden of fungal infections in Italy. *J Infect* 76:103–106. doi:10.1016/j.jinf.2017.07.008.
 110. Bugli F, Cacaci M, Palmieri V, Di Santo R, Torelli R, Ciasca G, Di Vito M, Vitali A, Conti C, Sanguinetti M, Spirito M de, Papi M. 2018. Curcumin-loaded graphene oxide flakes as an effective antibacterial system against methicillin-resistant *Staphylococcus aureus*. *Interface Focus* 8:20170059. doi:10.1098/rsfs.2017.0059.
 111. Cacaci M, Giraud C, Leger L, Torelli R, Martini C, Posteraro B, Palmieri V, Sanguinetti M, Bugli F, Hartke A. 2018. Expression profiling in a mammalian host reveals the strong induction of genes encoding LysM domain-containing proteins in *Enterococcus faecium*. *Sci Rep* 8:12412. doi:10.1038/s41598-018-30882-z.
 112. Cannas A, Camassa S, Sali M, Butera O, Mazzarelli A, Sanguinetti M, Di Caro A, Delogu G, Girardi E. 2018. Genetic Diversity of *Mycobacterium tuberculosis* Isolates in the Metropolitan Area of Rome. *Chemotherapy* 63:148–154. doi:10.1159/000489860.
 113. Della Pepa R, Cerchione C, Pugliese N, Colicchio R, Salvatore P, Sirignano C, Soscia E, Pagano L, Sanguinetti M, Pane F, Picardi M. 2018. Diagnostic-driven antifungal approach in neutropenic patients at high risk for chronic disseminated candidiasis: preliminary observations on the role of 1,3-β-D-glucan antigenemia and multiphasic contrast-enhanced computed tomography. *Support Care Cancer* 26:1691–1694. doi:10.1007/s00520-018-4138-9.
 114. Espinel-Ingroff A, Turnidge J, Alastruey-Izquierdo A, Dannaoui E, Garcia-Effron G, Guinea J, Kidd S, Pelaez T, Sanguinetti M, Meletiadiis J, Botterel F, Bustamante B, Chen Y-C, Chakrabarti A, Chowdhary A, Chrissyanthou E, Córdoba S, Gonzalez GM, Guarro J, Johnson EM, Kus JV, Lass-Flörl C, Linares-Sicilia MJ, Martín-Mazuelos E, Negri CE, Pfaller MA, Tortorano AM. 2018. Posaconazole MIC Distributions for *Aspergillus fumigatus* Species Complex by Four Methods: Impact of *cyp51A* Mutations on Estimation of Epidemiological Cutoff Values. *Antimicrob Agents Chemother* 62. doi:10.1128/AAC.01916-17.
 115. Galli J, Calò L, Meucci D, Giuliani M, Lucidi D, Paludetti G, Torelli R, Sanguinetti M, Parrilla C. 2018. Biofilm in voice prosthesis: A prospective cohort study and laboratory tests using sonication and SEM analysis. *Clin Otolaryngol* 43:1260–1265. doi:10.1111/coa.13141.

116. Ianiro G, Masucci L, Quaranta G, Simonelli C, Lopetuso LR, Sanguinetti M, Gasbarrini A, Cammarota G. 2018. Randomised clinical trial: faecal microbiota transplantation by colonoscopy plus vancomycin for the treatment of severe refractory *Clostridium difficile* infection-single versus multiple infusions. *Aliment Pharmacol Ther* 48:152–159. doi:10.1111/apt.14816.
117. Lopetuso LR, Petito V, Graziani C, Schiavoni E, Paroni Sterbini F, Poscia A, Gaetani E, Franceschi F, Cammarota G, Sanguinetti M, Masucci L, Scaldaferri F, Gasbarrini A. 2018. Gut Microbiota in Health, Diverticular Disease, Irritable Bowel Syndrome, and Inflammatory Bowel Diseases: Time for Microbial Marker of Gastrointestinal Disorders. *Dig Dis* 36:56–65. doi:10.1159/000477205.
118. Maio F de, Battah B, Palmieri V, Petrone L, Corrente F, Salustri A, Palucci I, Bellesi S, Papi M, Rubino S, Sali M, Goletti D, Sanguinetti M, Manganelli R, Spirito M de, Delogu G. 2018. PE_PGSR3 of *Mycobacterium tuberculosis* is specifically expressed at low phosphate concentration, and its arginine-rich C-terminal domain mediates adhesion and persistence in host tissues when expressed in *Mycobacterium smegmatis*. *Cell Microbiol* 20:e12952. doi:10.1111/cmi.12952.
119. Murri R, Taccari F, Spanu T, D'Inzeo T, Mastroiosa I, Giovannenze F, Scoppettuolo G, Ventura G, Palazzolo C, Camici M, Lardo S, Fiori B, Sanguinetti M, Cauda R, Fantoni M. 2018. A 72-h intervention for improvement of the rate of optimal antibiotic therapy in patients with bloodstream infections. *Eur J Clin Microbiol Infect Dis* 37:167–173. doi:10.1007/s10096-017-3117-2.
120. Murri R, Giovannenze F, Camici M, Torelli R, Ventura G, Scoppettuolo G, Sanguinetti M, Cauda R, Fantoni M. 2018. Systematic clinical management of patients with candidemia improves survival. *J Infect* 77:145–150. doi:10.1016/j.jinf.2018.03.011.
121. Palmieri V, Bugli F, Cacaci M, Perini G, Maio F de, Delogu G, Torelli R, Conti C, Sanguinetti M, Spirito M de, Zanoni R, Papi M. 2018. Graphene oxide coatings prevent *Candida albicans* biofilm formation with a controlled release of curcumin-loaded nanocomposites. *Nanomedicine (Lond)* 13:2867–2879. doi:10.2217/nnm-2018-0183.
122. Poljak M, Akova M, Friedrich AW, Rodríguez-Baño J, Sanguinetti M, Tacconelli E, Zinkernagel A. 2018. ESCMID—an international Europe-based society committed to fostering cross-border collaboration and education to improve patient care. *Clin Microbiol Infect* 24:1–2. doi:10.1016/j.cmi.2017.05.024.
123. Ponziani FR, Putignani L, Paroni Sterbini F, Petito V, Picca A, Del Chierico F, Reddel S, Calvani R, Marzetti E, Sanguinetti M, Gasbarrini A, Pompili M. 2018. Influence of hepatitis C virus eradication with direct-acting antivirals on the gut microbiota in patients with cirrhosis. *Aliment Pharmacol Ther* 48:1301–1311. doi:10.1111/apt.15004.
124. Posteraro B, Paroni Sterbini F, Petito V, Rocca S, Cubeddu T, Graziani C, Arena V, Vassallo GA, Mosoni C, Lopetuso L, Lorrain I, Maccioni P, Masucci L, Martini C, Gasbarrini A, Sanguinetti M, Colombo G, Addolorato G. 2018. Liver Injury, Endotoxemia, and Their Relationship to Intestinal Microbiota Composition in Alcohol-Preferring Rats. *Alcohol Clin Exp Res* 42:2313–2325. doi:10.1111/acer.13900.
125. Posteraro P, Vacca K, Celi M, Angelis G de, Vella A, Sanguinetti M, Posteraro B. 2018. Fatal fulminant cryptococemia complicating sarcoidosis: Is it to be expected? *Med Mycol Case Rep* 22:42–44. doi:10.1016/j.mmcr.2018.08.006.
126. Rizzato C, Poma N, Zoppo M, Posteraro B, Mello E, Bottai D, Lupetti A, Sanguinetti M, Tavanti A. 2018. CoERG11 A395T mutation confers azole resistance in *Candida orthopsilosis* clinical isolates. *J Antimicrob Chemother* 73:1815–1822. doi:10.1093/jac/dky122.
127. Sali M, Buonsenso D, D'Alfonso P, Maio F de, Ceccarelli M, Battah B, Palucci I, Chiacchio T, Goletti D, Sanguinetti M, Valentini P, Delogu G. 2018. Combined use of Quantiferon and HBHA-based IGRA supports tuberculosis diagnosis and therapy management in children. *J Infect* 77:526–533. doi:10.1016/j.jinf.2018.09.011.
128. Sali M, Maio F de, Tarantino M, Garofolo G, Tittarelli M, Sacchini L, Zilli K, Pasquali P, Petrucci P, Marianelli C, Francia M, Sanguinetti M, Adone R. 2018. Rapid and safe one-step extraction method for the identification of *Brucella* strains at genus and species level by MALDI-TOF mass spectrometry. *PLoS One* 13:e0197864. doi:10.1371/journal.pone.0197864.
129. Soldini S, Posteraro B, Vella A, Carolis E de, Borghi E, Falleni M, Losito AR, Maiuro G, Trecarichi EM, Sanguinetti M, Tumbarello M. 2018. Microbiologic and clinical characteristics of biofilm-forming *Candida parapsilosis* isolates associated with fungaemia and their impact on mortality. *Clin Microbiol Infect* 24:771–777. doi:10.1016/j.cmi.2017.11.005.
130. Ullmann AJ, Aguado JM, Arikan-Akdagli S, Denning DW, Groll AH, Lagrou K, Lass-Flörl C, Lewis RE, Muñoz P, Verweij PE, Warris A, Ader F, Akova M, Arendrup MC, Barnes RA, Beigelman-Aubry C, Blot S, Bouza E, Brüggemann RJM, Buchheidt D, Cadranel J, Castagnola E, Chakrabarti A, Cuenca-Estrella M, Dimopoulos G, Fortun J, Gangneux J-P, Garbino J, Heinz WJ, Herbrecht R, Heussel CP, Kibbler CC, Klimko N, Kullberg BJ, Lange C, Lehrnbecher T, Löffler J, Lortholary O, Maertens J, Marchetti O, Meis JF, Pagano L, Ribaud P, Richardson M, Roilides E, Ruhnke M, Sanguinetti M, Sheppard DC, Sinkó J, Skiada A, Vehreschild, M J G T, Viscoli C, Cornely OA. 2018. Diagnosis and management of Aspergillus diseases: executive summary of the 2017 ESCMID-ECCM-ERS guideline. *Clin Microbiol Infect* 24 Suppl 1:e1-e38. doi:10.1016/j.cmi.2018.01.002.
131. Zarzecka U, Modrak-Wojcik A, Bayassi M, Szewczyk M, Gieldon A, Lesner A, Koper T, Bzowska A, Sanguinetti M, Backert S, Lipinska B, Skorko-Glonek J. 2018. Biochemical properties of the HtrA homolog from bacterium *Stenotrophomonas maltophilia*. *Int J Biol Macromol* 109:992–1005. doi:10.1016/j.ijbiomac.2017.11.086.
132. Camassa S, Palucci I, Iantomasi R, Cubeddu T, Minerva M, Maio F de, Jouny S, Petruccioli E, Goletti D, Ria F, Sali M, Sanguinetti M, Manganelli R, Rocca S, Brodin P, Delogu G. 2017. Impact of pe_pgSR33 Gene Polymorphisms on *Mycobacterium tuberculosis* Infection and Pathogenesis. *Front Cell Infect Microbiol* 7:137. doi:10.3389/fcimb.2017.00137.
133. Cammarota G, Ianiro G, Tilg H, Rajilić-Stojanović M, Kump P, Satokari R, Sokol H, Arkkila P, Pintus C, Hart A, Segal J, Aloï M, Masucci L, Molinaro A, Scaldaferri F, Gasbarrini G, Lopez-Sanroman A, Link A, Groot P de, Vos WM de, Högenauer C, Malfertheiner P, Mattila E, Milosavljević T, Nieuwdorp M, Sanguinetti M, Simren M, Gasbarrini A. 2017. European consensus conference on faecal microbiota transplantation in clinical practice. *Gut* 66:569–580. doi:10.1136/gutjnl-2016-313017.
134. Carolis E de, Paoletti S, Nagel D, Vella A, Mello E, Palucci I, Angelis G de, D'Inzeo T, Sanguinetti M, Posteraro B, Spanu T. 2017. A rapid diagnostic workflow for cefotaxime-resistant *Escherichia coli* and *Klebsiella pneumoniae* detection from blood cultures by MALDI-TOF mass spectrometry. *PLoS One* 12:e0185935. doi:10.1371/journal.pone.0185935.
135. Di Simone N, Tersigni C, Cardaropoli S, Franceschi F, Di Nicuolo F, Castellani R, Bugli F, Waure C de, Cavaliere AF, Gasbarrini A, Sanguinetti M, Scambia G, Todros T. 2017. *Helicobacter pylori* infection contributes to placental impairment in preeclampsia: basic and clinical evidences. *Helicobacter* 22. doi:10.1111/hel.12347.
136. D'Inzeo T, Angelis G de, Fiori B, Menchinelli G, Liotti FM, Morandotti GA, Maio F de, Nagel D, Antonaci M, Sanguinetti M, Spanu T. 2017. Comparison of *Mycoplasma* IES, Mycofast Revolution and *Mycoplasma* IST2 to detect genital mycoplasmas in clinical

- samples. *J Infect Dev Ctries* 11:98–101. doi:10.3855/jidc.8039.
137. Espinel-Ingroff A, Arendrup M, Cantón E, Córdoba S, Dannaoui E, García-Rodríguez J, Gonzalez GM, Govender NP, Martin-Mazuelo E, Lackner M, Lass-Flörl C, Linares Sicilia MJ, Rodríguez-Iglesias MA, Pelaez T, Shields RK, Garcia-Effron G, Guinea J, Sanguinetti M, Turnidge J. 2017. Multicenter Study of Method-Dependent Epidemiological Cutoff Values for Detection of Resistance in *Candida* spp. and *Aspergillus* spp. to Amphotericin B and Echinocandins for the Etest Agar Diffusion Method. *Antimicrob Agents Chemother* 61. doi:10.1128/AAC.01792-16.
 138. Giacobbe DR, Mikulska M, Tumbarello M, Furfaro E, Spadaro M, Losito AR, Mesini A, Pascale G de, Marchese A, Bruzzone M, Pelosi P, Mussap M, Molin A, Antonelli M, Posteraro B, Sanguinetti M, Viscoli C, Del Bono V. 2017. Combined use of serum (1,3)- β -D-glucan and procalcitonin for the early differential diagnosis between candidaemia and bacteraemia in intensive care units. *Crit Care* 21:176. doi:10.1186/s13054-017-1763-5.
 139. Hagen F, Lumbsch HT, Arsic Arsenijevic V, Badali H, Bertout S, Billmyre RB, Bragulat MR, Cabañes FJ, Carbia M, Chakrabarti A, Chaturvedi S, Chaturvedi V, Chen M, Chowdhary A, Colom M-F, Cornely OA, Crous PW, Cuétara MS, Diaz MR, Espinel-Ingroff A, Fakhim H, Falk R, Fang W, Herkert PF, Ferrer Rodríguez C, Fraser JA, Gené J, Guarro J, Idnurm A, Illnait-Zaragozi M-T, Khan Z, Khayhan K, Kolecka A, Kurtzman CP, Lagrou K, Liao W, Linares C, Meis JF, Nielsen K, Nyazika TK, Pan W, Pekmezovic M, Polacheck I, Posteraro B, de Queiroz Telles, Flavio Filho, Romeo O, Sánchez M, Sampaio A, Sanguinetti M, Sriburee P, Sugita T, Taj-Aldeen SJ, Takashima M, Taylor JW, Theelen B, Tomazin R, Verweij PE, Wahyuningsih R, Wang P, Boekhout T. 2017. Importance of Resolving Fungal Nomenclature: the Case of Multiple Pathogenic Species in the *Cryptococcus* Genus. *mSphere* 2. doi:10.1128/mSphere.00238-17.
 140. Ianiro G, Sanguinetti M, Gasbarrini A, Cammarota G. 2017. Predictors of failure after single faecal microbiota transplantation in patients with recurrent *Clostridium difficile* infection: results from a 3-year cohort study: authors' reply. *Clin Microbiol Infect* 23:891. doi:10.1016/j.cmi.2017.05.005.
 141. Ianiro G, Valerio L, Masucci L, Pecere S, Bibbò S, Quaranta G, Posteraro B, Currò D, Sanguinetti M, Gasbarrini A, Cammarota G. 2017. Predictors of failure after single faecal microbiota transplantation in patients with recurrent *Clostridium difficile* infection: results from a 3-year, single-centre cohort study. *Clin Microbiol Infect* 23:337.e1-337.e3. doi:10.1016/j.cmi.2016.12.025.
 142. Jamet A, Dervyn R, Lapaque N, Bugli F, Perez-Cortez NG, Blottière HM, Twizere J-C, Sanguinetti M, Posteraro B, Serror P, Maguin E. 2017. The *Enterococcus faecalis* virulence factor *ElrA* interacts with the human Four-and-a-Half LIM Domains Protein 2. *Sci Rep* 7:4581. doi:10.1038/s41598-017-04875-3.
 143. Maged D, Ferrelli RM, Zorayan A, Di Pietro ML, Belvis AG de, Ricciardi W, Boccia S, Teleman AA, Sanguinetti M. 2017. Cooperating to improve healthcare in Arab countries. *Ann Ist Super Sanita* 53:330–333. doi:10.4415/ANN_17_04_09.
 144. Mello E, Posteraro B, Vella A, Carolis E de, Torelli R, D'Inzeo T, Verweij PE, Sanguinetti M. 2017. Susceptibility Testing of Common and Uncommon *Aspergillus* Species against Posaconazole and Other Mold-Active Antifungal Azoles Using the Sensititre Method. *Antimicrob Agents Chemother* 61. doi:10.1128/AAC.00168-17.
 145. Minerva M, Maio F de, Camassa S, Battah B, Ivana P, Manganelli R, Sanguinetti M, Sali M, Delogu G. 2017. Evaluation of PE_PGRS33 as a potential surface target for humoral responses against *Mycobacterium tuberculosis*. *Pathog Dis* 75. doi:10.1093/femspd/ftx100.
 146. Murri R, Fiori B, Spanu T, Mastroianni I, Giovannenze F, Taccari F, Palazzolo C, Scoppettuolo G, Ventura G, Sanguinetti M, Cauda R, Fantoni M. 2017. Trimethoprim-sulfamethoxazole therapy for patients with carbapenemase-producing *Klebsiella pneumoniae* infections: retrospective single-center case series. *Infection* 45:209–213. doi:10.1007/s15010-016-0968-x.
 147. Pedicino D, Severino A, Ucci S, Bugli F, Flego D, Giglio AF, Trotta F, Ruggio A, Lucci C, Iaconelli A, Paroni Sterbini F, Biasucci LM, Sanguinetti M, Glioca F, Luciani N, Massetti M, Crea F, Liuzzo G. 2017. Epicardial adipose tissue microbial colonization and inflammasome activation in acute coronary syndrome. *Int J Cardiol* 236:95–99. doi:10.1016/j.ijcard.2017.02.040.
 148. Poerio N, Bugli F, Taus F, Santucci MB, Rodolfo C, Cecconi F, Torelli R, Varone F, Inchingolo R, Majo F, Lucidi V, Mariotti S, Nisini R, Sanguinetti M, Fraziano M. 2017. Liposomes loaded with bioactive lipids enhance antibacterial innate immunity irrespective of drug resistance. *Sci Rep* 7:45120. doi:10.1038/srep45120.
 149. Posteraro B, Vella A, Carolis E de, Sanguinetti M. 2017. Molecular Detection of Resistance to Azole Components. *Methods Mol Biol* 1508:423–435. doi:10.1007/978-1-4939-6515-1_24.
 150. Posteraro B, Vella A, Carolis E de, Sanguinetti M. 2017. Molecular Detection of Resistance to Echinocandins. *Methods Mol Biol* 1508:413–421. doi:10.1007/978-1-4939-6515-1_23.
 151. Sinel C, Augagneur Y, Sassi M, Bronsard J, Cacaci M, Guérin F, Sanguinetti M, Meignen P, Cattoir V, Felden B. 2017. Small RNAs in vancomycin-resistant *Enterococcus faecium* involved in daptomycin response and resistance. *Sci Rep* 7:11067. doi:10.1038/s41598-017-11265-2.
 152. Sinel C, Cacaci M, Meignen P, Guérin F, Davies BW, Sanguinetti M, Giard J-C, Cattoir V. 2017. Subinhibitory Concentrations of Ciprofloxacin Enhance Antimicrobial Resistance and Pathogenicity of *Enterococcus faecium*. *Antimicrob Agents Chemother* 61. doi:10.1128/AAC.02763-16.
 153. Tisi MC, Hohaus S, Cuccaro A, Innocenti I, Carolis E de, Za T, D'Alò F, Laurenti L, Fianchi L, Sica S, Sanguinetti M, Stefano V de, Pagano L. 2017. Invasive fungal infections in chronic lymphoproliferative disorders: a monocentric retrospective study. *Haematologica* 102:e108-e111. doi:10.3324/haematol.2016.151837.
 154. Torelli R, Cacaci M, Papi M, Paroni Sterbini F, Martini C, Posteraro B, Palmieri V, Spirito M de, Sanguinetti M, Bugli F. 2017. Different effects of matrix degrading enzymes towards biofilms formed by *E. faecalis* and *E. faecium* clinical isolates. *Colloids Surf B Biointerfaces* 158:349–355. doi:10.1016/j.colsurfb.2017.07.010.
 155. Torosantucci A, Tumbarello M, Bromuro C, Chiani P, Posteraro B, Sanguinetti M, Cauda R, Cassone A. 2017. Antibodies against a β -glucan-protein complex of *Candida albicans* and its potential as indicator of protective immunity in candidemic patients. *Sci Rep* 7:2722. doi:10.1038/s41598-017-02977-6.
 156. Vella A, Carolis E de, Mello E, Perlin DS, Sanglard D, Sanguinetti M, Posteraro B. 2017. Potential Use of MALDI-ToF Mass Spectrometry for Rapid Detection of Antifungal Resistance in the Human Pathogen *Candida glabrata*. *Sci Rep* 7:9099. doi:10.1038/s41598-017-09329-4.

Maurizio Sanguinetti

A handwritten signature in black ink that reads "Maurizio Sanguinetti". The signature is written in a cursive style with a prominent vertical stroke at the end.

Roma, 24-02-2021

Autorizzo il trattamento dei dati personali ai sensi del
regolamento UE 679/2016