

SCOTT GARY FRANZBLAU, Ph.D.

ADDRESS

Institute for Tuberculosis Research (MC 964) College of Pharmacy, Rm 425
University of Illinois at Chicago 833 S. Wood St., Rm 425
Chicago, Illinois 60612-7231 sgf@uic.edu
Tel: (312) 355-1715, Mobile (845) 901-7553
Fax: (312) 355-2693
<https://pharmacy.uic.edu/research/tuberculosis-research>

EDUCATION

B.S. 1976 Cook College, Rutgers University, New Brunswick
Major: Biology

M.S. 1978 University of Arizona, Tucson
Major: Microbiology

Ph.D. 1982 University of Arizona, Tucson
Major: Microbiology
Minor: Pharmaceutical Chemistry

Postgraduate 1984 Dept. of Microbiology, Kurume Univ. School of Medicine
Kurume, Japan

HONORS

Albert Schatz endowed Professorship, 2017

Teaching Recognition Program Award Recipient, 2008-2009

Rho Chi Pharmacy Honor Society, 2007

Teacher of the Semester, 2007, and 2006, Teacher of the Year, 2005

Fulbright Senior Scholar Research Award: 1999/2000

Finalist: J.D. Lane Junior Clinical Investigator Award Competition, U.S. Public Health Service 1987

EMPLOYMENT

2000-present Director, Institute for Tuberculosis Research, College of Pharmacy,
University of Illinois at Chicago

and

Albert Schatz Professor, Dept. of Medicinal Chemistry and Pharmacognosy,
College of Pharmacy, University of Illinois at Chicago

1994-2000 Chief, Pharmacology Research Department, Laboratory Research Branch,
National Hansen's Disease Center, Baton Rouge, Louisiana and

Adjunct Associate Professor, Department of Veterinary Microbiology and
Parasitology, School of Veterinary Medicine, Louisiana State University, Baton
Rouge, Louisiana

1985-1994 Microbiologist, Laboratory Research Branch, National Hansen's Disease
Center, Baton Rouge, Louisiana

1984 Postdoctoral Research Associate, Department of Microbiology, Kurume
University School of Medicine, Kurume, Japan

1983 Research Associate, Bioresources Research Facility, Office of Arid Lands Studies,
University of Arizona, Tucson

RESEARCH INTERESTS

- 1) new drug discovery for tuberculosis, non-tuberculous mycobacteria, ESKAPE pathogens and Lyme disease
- 2) antimicrobial assay development
- 3) Isolation of novel minor bioactive secondary metabolites

PUBLICATIONS (290 in reverse chronological order)

1. Choules MP, Klein LL, Lankin DC, McAlpine JB, Cho SH, Cheng J, Lee H, Suh JW, Jaki BU, Franzblau SG, Pauli GF. Residual Complexity Does Impact Organic Chemistry and Drug Discovery: The Case of Rufomyzine and Rufomycin. *The Journal of organic chemistry*. 2018; 83(12):6664-6672. PubMed [journal] PMID: 29792329, PMCID: PMC6006449
2. Palos I, Luna-Herrera J, Lara-Ramírez EE, Loera-Piedra A, Fernández-Ramírez E, Aguilera-Arreola MG, Paz-González AD, Monge A, Wan B, Franzblau S, Rivera G. Anti-*Mycobacterium tuberculosis* Activity of Esters of Quinoxaline 1,4-Di-N-Oxide. *Molecules (Basel, Switzerland)*. 2018; 23(6). PubMed [journal] PMID: 29914062
3. Schmidt U, Theumer G, Jäger A, Kataeva O, Wan B, Franzblau SG, Knölker HJ. Synthesis and Activity against *Mycobacterium tuberculosis* of Olivacine and Oxygenated Derivatives. *Molecules (Basel, Switzerland)*. 2018; 23(6). PubMed [journal] PMID: 29890747
4. Meta E, Brullo C, Tonelli M, Franzblau SG, Wang Y, Ma R, Baojie W, Orena BS, Pasca MR, Bruno O. Pyrazole and imidazo[1,2-b]pyrazole derivatives as new potential anti-tuberculosis agents. *Medicinal chemistry (Sharjah (United Arab Emirates))*. 2018; PubMed [journal] PMID: 29792151
5. Sutherland HS, Tong AST, Choi PJ, Conole D, Blaser A, Franzblau SG, Cooper CB, Upton AM, Lotlikar MU, Denny WA, Palmer BD. Structure-activity relationships for analogs of the tuberculosis drug bedaquiline with the naphthalene unit replaced by bicyclic heterocycles. *Bioorganic & medicinal chemistry*. 2018; 26(8):1797-1809. PubMed [journal] PMID: 29482950, PMCID: PMC5933462
6. Thompson AM, O'Connor PD, Marshall AJ, Blaser A, Yardley V, Maes L, Gupta S, Launay D, Braillard S, Chatelain E, Wan B, Franzblau SG, Ma Z, Cooper CB, Denny WA. Development of (6 R)-2-Nitro-6-[4-(trifluoromethoxy)phenoxy]-6,7-dihydro-5 H-imidazo[2,1-b][1,3]oxazine (DNDI-8219): A New Lead for Visceral Leishmaniasis. *Journal of medicinal chemistry*. 2018; 61(6):2329-2352. PubMed [journal] PMID: 29461823, PMCID: PMC5867678
7. Harbut MB, Yang B, Liu R, Yano T, Vilchèze C, Cheng B, Lockner J, Guo H, Yu C, Franzblau SG, Petrassi HM, Jacobs WR Jr, Rubin H, Chatterjee AK, Wang F. Small Molecules Targeting *Mycobacterium tuberculosis* Type II NADH Dehydrogenase Exhibit Antimycobacterial Activity. *Angewandte Chemie (International ed. in English)*. 2018; 57(13):3478-3482. PubMed [journal] PMID: 29388301
8. Macabeo APG, Letada AG, Budde S, Faderl C, Dahse HM, Franzblau SG, Alejandro GJD, Pierens GK, Garson MJ. Antitubercular and Cytotoxic Chlorinated seco-Cyclohexenes from *Uvaria alba*. *Journal of natural products*. 2017; 80(12):3319-3323. PubMed [journal] PMID: 29172496

9. Thompson AM, Bonnet M, Lee HH, Franzblau SG, Wan B, Wong GS, Cooper CB, Denny WA. Antitubercular Nitroimidazoles Revisited: Synthesis and Activity of the Authentic 3-Nitro Isomer of Pretomanid. *ACS medicinal chemistry letters*. 2017; 8(12):1275-1280. PubMed [journal] PMID: 29259747, PMCID: PMC5733301

10. Choi PJ, Sutherland HS, Tong AST, Blaser A, Franzblau SG, Cooper CB, Lotlikar MU, Upton AM, Guillemont J, Motte M, Queguiner L, Andries K, Van den Broeck W, Denny WA, Palmer BD. Synthesis and evaluation of analogues of the tuberculosis drug bedaquiline containing heterocyclic B-ring units. *Bioorganic & medicinal chemistry letters*. 2017; 27(23):5190-5196. PubMed [journal] PMID: 29107541, PMCID: PMC5696560

11. Börger C, Brütting C, Julich-Gruner KK, Hesse R, Kumar VP, Kutz SK, Rönnefahrt M, Thomas C, Wan B, Franzblau SG, Knölker HJ. Anti-tuberculosis activity and structure-activity relationships of oxygenated tricyclic carbazole alkaloids and synthetic derivatives. *Bioorganic & medicinal chemistry*. 2017; 25(22):6167-6174. PubMed [journal] PMID: 28094223

12. Gao W, McAlpine JB, Choules MP, Napolitano JG, Lankin DC, Simmler C, Ho NA, Lee H, Suh JW, Burton IW, Cho S, Franzblau SG, Chen SN, Pauli GF. Structural Sequencing of Oligopeptides Aided by ¹H Iterative Full-Spin Analysis. *Journal of natural products*. 2017; 80(10):2630-2643. PubMed [journal] PMID: 29035048

13. Dos Santos Fernandes GF, de Souza PC, Moreno-Viguri E, Santivañez-Veliz M, Paucar R, Pérez-Silanes S, Chegaev K, Guglielmo S, Lazzarato L, Fruttero R, Man Chin C, da Silva PB, Chorilli M, Solcia MC, Ribeiro CM, Silva CSP, Marino LB, Bosquesi PL, Hunt DM, de Carvalho LPS, de Souza Costa CA, Cho SH, Wang Y, Franzblau SG, Pavan FR, Dos Santos JL. Design, Synthesis, and Characterization of N-Oxide-Containing Heterocycles with in Vivo Sterilizing Antitubercular Activity. *Journal of medicinal chemistry*. 2017; 60(20):8647-8660. PubMed [journal] PMID: 28968083, PMCID: PMC5677254

14. Tong AST, Choi PJ, Blaser A, Sutherland HS, Tsang SKY, Guillemont J, Motte M, Cooper CB, Andries K, Van den Broeck W, Franzblau SG, Upton AM, Denny WA, Palmer BD, Conole D. 6-Cyano Analogues of Bedaquiline as Less Lipophilic and Potentially Safer Diarylquinolines for Tuberculosis. *ACS medicinal chemistry letters*. 2017; 8(10):1019-1024. PubMed [journal] PMID: 29057044, PMCID: PMC5642017

15. Brengel C, Thomann A, Schifrin A, Allegretta G, Kamal AAM, Hauptenthal J, Schnorr I, Cho SH, Franzblau SG, Empting M, Eberhard J, Hartmann RW. Biophysical Screening of a Focused Library for the Discovery of CYP121 Inhibitors as Novel Antimycobacterials. *ChemMedChem*. 2017; 12(19):1616-1626. PubMed [journal] PMID: 28815923

16. Liu R, Lyu X, Batt SM, Hsu MH, Harbut MB, Vilchèze C, Cheng B, Ajayi K, Yang B,

Yang Y, Guo H, Lin C, Gan F, Wang C, Franzblau SG, Jacobs WR Jr, Besra GS, Johnson EF, Petrassi M, Chatterjee AK, Fütterer K, Wang F. Determinants of the Inhibition of DprE1 and CYP2C9 by Antitubercular Thiophenes. *Angewandte Chemie (International ed. in English)*. 2017; 56(42):13011-13015. PubMed [journal] PMID: 28815830, PMCID: PMC5659129

17. Warit S, Rukseree K, Prammananan T, Hongmanee P, Billamas P, Jaitrong S, Chaiprasert A, Jaki BU, Pauli GF, Franzblau SG, Palittapongarnpim P. In Vitro Activities of Enantiopure and Racemic 1'-Acetoxychavicol Acetate against Clinical Isolates of *Mycobacterium tuberculosis*. *Scientia pharmaceutica*. 2017; 85(3). PubMed [journal] PMID: 28927024, PMCID: PMC5620519

18. Gomes MN, Braga RC, Grzelak EM, Neves BJ, Muratov E, Ma R, Klein LL, Cho S, Oliveira GR, Franzblau SG, Andrade CH. QSAR-driven design, synthesis and discovery of potent chalcone derivatives with antitubercular activity. *European journal of medicinal chemistry*. 2017; 137:126-138. NIHMSID: NIHMS888341 PubMed [journal] PMID: 28582669, PMCID: PMC6031314

19. Wavhale RD, Martis EAF, Ambre PK, Wan B, Franzblau SG, Iyer KR, Raikuvar K, Macegoniuk K, Berlicki Ł, Nandan SR, Coutinho EC. Discovery of new leads against *Mycobacterium tuberculosis* using scaffold hopping and shape based similarity. *Bioorganic & medicinal chemistry*. 2017; 25(17):4835-4844. PubMed [journal] PMID: 28778369

20. Jiménez-Romero C, Rode JE, Pérez YM, Franzblau SG, Rodríguez AD. Exploring the Sponge Consortium *Plakortis symbiotica*-*Xestospongia deweerdtiae* as a Potential Source of Antimicrobial Compounds and Probing the Pharmacophore for Antituberculosis Activity of *Smenothiazole A* by Diverted Total Synthesis. *Journal of natural products*. 2017; 80(8):2295-2303. PubMed [journal] PMID: 28742349

21. Liu Y, Friesen JB, Grzelak EM, Fan Q, Tang T, Durić K, Jaki BU, McAlpine JB, Franzblau SG, Chen SN, Pauli GF. Sweet spot matching: A thin-layer chromatography-based countercurrent solvent system selection strategy. *Journal of chromatography. A*. 2017; 1504:46-54. NIHMSID: NIHMS876904 PubMed [journal] PMID: 28506498, PMCID: PMC5511999

22. Thompson AM, Blaser A, Palmer BD, Anderson RF, Shinde SS, Launay D, Chatelain E, Maes L, Franzblau SG, Wan B, Wang Y, Ma Z, Denny WA. 6-Nitro-2,3-dihydroimidazo[2,1-b][1,3]thiazoles: Facile synthesis and comparative appraisal against tuberculosis and neglected tropical diseases. *Bioorganic & medicinal chemistry letters*. 2017; 27(11):2583-2589. PubMed [journal] PMID: 28462832

23. Gomes MN, Alcântara LM, Neves BJ, Melo-Filho CC, Freitas-Junior LH, Moraes CB, Ma R, Franzblau SG, Muratov E, Andrade CH. Computer-aided discovery of two novel chalcone-like compounds active and selective against *Leishmania infantum*. *Bioorganic & medicinal chemistry letters*. 2017; 27(11):2459-2464. NIHMSID:

NIHMS888321 PubMed [journal] PMID: 28434763, PMCID: PMC6020026

24. Thompson AM, O'Connor PD, Marshall AJ, Yardley V, Maes L, Gupta S, Launay D, Braillard S, Chatelain E, Franzblau SG, Wan B, Wang Y, Ma Z, Cooper CB, Denny WA. 7-Substituted 2-Nitro-5,6-dihydroimidazo[2,1-b][1,3]oxazines: Novel Antitubercular Agents Lead to a New Preclinical Candidate for Visceral Leishmaniasis. *Journal of medicinal chemistry*. 2017; 60(10):4212-4233. PubMed [journal] PMID: 28459575

25. Velappan AB, Charan Raja MR, Datta D, Tsai YT, Halloum I, Wan B, Kremer L, Gramajo H, Franzblau SG, Kar Mahapatra S, Debnath J. Attenuation of Mycobacterium species through direct and macrophage mediated pathway by unsymmetrical diaryl urea. *European journal of medicinal chemistry*. 2017; 125:825-841. PubMed [journal] PMID: 27750200

26. Mitachi K, Siricilla S, Yang D, Kong Y, Skorupinska-Tudek K, Swiezewska E, Franzblau SG, Kurosu M. Fluorescence-based assay for polyprenyl phosphate-GlcNAc-1-phosphate transferase (WecA) and identification of novel antimycobacterial WecA inhibitors. *Analytical biochemistry*. 2016; 512:78-90. NIHMSID: NIHMS810685 PubMed [journal] PMID: 27530653, PMCID: PMC5012913

27. Palencia A, Li X, Bu W, Choi W, Ding CZ, Easom EE, Feng L, Hernandez V, Houston P, Liu L, Meewan M, Mohan M, Rock FL, Sexton H, Zhang S, Zhou Y, Wan B, Wang Y, Franzblau SG, Woolhiser L, Gruppo V, Lenaerts AJ, O'Malley T, Parish T, Cooper CB, Waters MG, Ma Z, Ioerger TR, Sacchettini JC, Rullas J, Angulo-Barturen I, Pérez-Herrán E, Mendoza A, Barros D, Cusack S, Plattner JJ, Alley MR. Discovery of Novel Oral Protein Synthesis Inhibitors of Mycobacterium tuberculosis That Target Leucyl-tRNA Synthetase. *Antimicrobial agents and chemotherapy*. 2016; 60(10):6271-80. PubMed [journal] PMID: 27503647, PMCID: PMC5038265

28. Moraski GC, Cheng Y, Cho S, Cramer JW, Godfrey A, Masquelin T, Franzblau SG, Miller MJ, Schorey J. Imidazo[1,2-a]Pyridine-3-Carboxamides Are Active Antimicrobial Agents against Mycobacterium avium Infection In Vivo. *Antimicrobial agents and chemotherapy*. 2016; 60(8):5018-22. PubMed [journal] PMID: 27216051, PMCID: PMC4958206

29. Guan YF, Song X, Qiu MH, Luo SH, Wang BJ, Van Hung N, Cuong NM, Soejarto DD, Fong HH, Franzblau SG, Li SH, He ZD, Zhang HJ. Bioassay-Guided Isolation and Structural Modification of the Anti-TB Resorcinols from *Ardisia gigantifolia*. *Chemical biology & drug design*. 2016; 88(2):293-301. PubMed [journal] PMID: 26992112

30. Segretti ND, Simões CK, Corrêa MF, Felli VM, Miyata M, Cho SH, Franzblau SG, Fernandes JP. Antimycobacterial activity of pyrazinoate prodrugs in replicating and non-replicating Mycobacterium tuberculosis. *Tuberculosis (Edinburgh, Scotland)*. 2016; 99:11-6. PubMed [journal] PMID: 27449999

31. Moraski GC, Seeger N, Miller PA, Oliver AG, Boshoff HI, Cho S, Mulugeta S,

Anderson JR, Franzblau SG, Miller MJ. Arrival of Imidazo[2,1-b]thiazole-5-carboxamides: Potent Anti-tuberculosis Agents That Target QcrB. *ACS infectious diseases*. 2016; 2(6):393-8. PubMed [journal] PMID: 27627627

32. Majewski MW, Tiwari R, Miller PA, Cho S, Franzblau SG, Miller MJ. Design, syntheses, and anti-tuberculosis activities of conjugates of piperazino-1,3-benzothiazin-4-ones (pBTZs) with 2,7-dimethylimidazo [1,2-a]pyridine-3-carboxylic acids and 7-phenylacetyl cephalosporins. *Bioorganic & medicinal chemistry letters*. 2016; 26(8):2068-71. NIHMSID: NIHMS766320 PubMed [journal] PMID: 26951749, PMCID: PMC4824297

33. Grzelak EM, Hwang C, Cai G, Nam JW, Choules MP, Gao W, Lankin DC, McAlpine JB, Mulugeta SG, Napolitano JG, Suh JW, Yang SH, Cheng J, Lee H, Kim JY, Cho SH, Pauli GF, Franzblau SG, Jaki BU. Bioautography with TLC-MS/NMR for Rapid Discovery of Anti-tuberculosis Lead Compounds from Natural Sources. *ACS infectious diseases*. 2016; 2(4):294-301. NIHMSID: NIHMS782650 PubMed [journal] PMID: 27478868, PMCID: PMC4963014

34. Thompson AM, O'Connor PD, Blaser A, Yardley V, Maes L, Gupta S, Launay D, Martin D, Franzblau SG, Wan B, Wang Y, Ma Z, Denny WA. Repositioning Antitubercular 6-Nitro-2,3-dihydroimidazo[2,1-b][1,3]oxazoles for Neglected Tropical Diseases: Structure-Activity Studies on a Preclinical Candidate for Visceral Leishmaniasis. *Journal of medicinal chemistry*. 2016; 59(6):2530-50. PubMed [journal] PMID: 26901446

35. Tiwari R, Miller PA, Chiarelli LR, Mori G, Šarkan M, Centárová I, Cho S, Mikušová K, Franzblau SG, Oliver AG, Miller MJ. Design, Syntheses, and Anti-TB Activity of 1,3-Benzothiazinone Azide and Click Chemistry Products Inspired by BTZ043. *ACS medicinal chemistry letters*. 2016; 7(3):266-70. PubMed [journal] PMID: 26985313, PMCID: PMC4789662

36. Nieves K, Prudhomme J, Le Roch KG, Franzblau SG, Rodríguez AD. Natural product-based synthesis of novel anti-infective isothiocyanate- and isoselenocyanate-functionalized amphilectane diterpenes. *Bioorganic & medicinal chemistry letters*. 2016; 26(3):854-857. NIHMSID: NIHMS748929 PubMed [journal] PMID: 26748697, PMCID: PMC4815908

37. Majewski MW, Watson KD, Cho S, Miller PA, Franzblau SG, Miller MJ. Syntheses and Biological Evaluations of Highly Functionalized Hydroxamate Containing and *N*-Methylthio Monobactams as Anti-Tuberculosis and β -Lactamase Inhibitory Agents. *MedChemComm*. 2016; 7(1):141-147. NIHMSID: NIHMS731157 PubMed [journal] PMID: 26918106, PMCID: PMC4762374

38. Avilés E, Prudhomme J, Le Roch KG, Franzblau SG, Chandrasena K, Mayer AM, Rodríguez AD. Synthesis and preliminary biological evaluation of a small library of hybrid compounds based on Ugi isocyanide multicomponent reactions with a marine natural product scaffold. *Bioorganic & medicinal chemistry letters*. 2015;

25(22):5339-43. NIHMSID: NIHMS727494 PubMed [journal] PMID: 26421992, PMCID: PMC4815915

39. Penta A, Franzblau S, Wan B, Murugesan S. Design, synthesis and evaluation of diarylpiperazine derivatives as potent anti-tubercular agents. *European journal of medicinal chemistry*. 2015; 105:238-44. PubMed [journal] PMID: 26498570

40. Majewski MW, Cho S, Miller PA, Franzblau SG, Miller MJ. Syntheses and evaluation of substituted aromatic hydroxamates and hydroxamic acids that target *Mycobacterium tuberculosis*. *Bioorganic & medicinal chemistry letters*. 2015; 25(21):4933-4936. NIHMSID: NIHMS693053 PubMed [journal] PMID: 26037320, PMCID: PMC4607592

41. Gutka HJ, Wang Y, Franzblau SG, Movahedzadeh F. *glpx* Gene in *Mycobacterium tuberculosis* Is Required for In Vitro Gluconeogenic Growth and In Vivo Survival. *PloS one*. 2015; 10(9):e0138436. PubMed [journal] PMID: 26397812, PMCID: PMC4580611

42. Thompson AM, Blaser A, Palmer BD, Franzblau SG, Wan B, Wang Y, Ma Z, Denny WA. Biaryl-methoxy 2-nitroimidazooxazine antituberculosis agents: Effects of proximal ring substitution and linker reversal on metabolism and efficacy. *Bioorganic & medicinal chemistry letters*. 2015; 25(18):3804-9. PubMed [journal] PMID: 26253632

43. Pieroni M, Wan B, Zuliani V, Franzblau SG, Costantino G, Rivara M. Discovery of antitubercular 2,4-diphenyl-1H-imidazoles from chemical library repositioning and rational design. *European journal of medicinal chemistry*. 2015; 100:44-9. PubMed [journal] PMID: 26071857

44. Luo S, Kang HS, Kronic A, Chen WL, Yang J, Woodard JL, Fuchs JR, Hyun Cho S, Franzblau SG, Swanson SM, Orjala J. Trichormamides C and D, antiproliferative cyclic lipopeptides from the cultured freshwater cyanobacterium cf. *Oscillatoria* sp. UIC 10045. *Bioorganic & medicinal chemistry*. 2015; 23(13):3153-62. NIHMSID: NIHMS696289 PubMed [journal] PMID: 26001342, PMCID: PMC4469202

45. Mullowney MW, Hwang CH, Newsome AG, Wei X, Tanouye U, Wan B, Carlson S, Barranis NJ, hAinmhire E, Chen WL, Krishnamoorthy K, White J, Blair R, Lee H, Burdette JE, Rathod PK, Parish T, Cho S, Franzblau SG, Murphy BT. Diaza-anthracene Antibiotics from a Freshwater-Derived Actinomycete with Selective Antibacterial Activity toward *Mycobacterium tuberculosis*. *ACS infectious diseases*. 2015; 1(4):168-174. NIHMSID: NIHMS734115 PubMed [journal] PMID: 26594660, PMCID: PMC4648258

46. Palmer BD, Sutherland HS, Blaser A, Kmentova I, Franzblau SG, Wan B, Wang Y, Ma Z, Denny WA, Thompson AM. Synthesis and structure-activity relationships for extended side chain analogues of the antitubercular drug (6S)-2-nitro-6-[[4-(trifluoromethoxy)benzyl]oxy]-6,7-dihydro-5H-imidazo[2,1-b][1,3]oxazine (PA-824). *Journal of medicinal chemistry*. 2015; 58(7):3036-59. PubMed

[journal] PMID: 25781074

47. Siricilla S, Mitachi K, Wan B, Franzblau SG, Kurosu M. Discovery of a capuramycin analog that kills nonreplicating *Mycobacterium tuberculosis* and its synergistic effects with translocase I inhibitors. *The Journal of antibiotics*. 2015; 68(4):271-8. NIHMSID: NIHMS626612 PubMed [journal] PMID: 25269459, PMCID: PMC4382465

48. Moraski GC, Miller PA, Bailey MA, Ollinger J, Parish T, Boshoff HI, Cho S, Anderson JR, Mulugeta S, Franzblau SG, Miller MJ. Putting Tuberculosis (TB) To Rest: Transformation of the Sleep Aid, Ambien, and "Anagrams" Generated Potent Antituberculosis Agents. *ACS infectious diseases*. 2015; 1(2):85-90. PubMed [journal] PMID: 25984566, PMCID: PMC4426345

49. Tiwari R, Miller PA, Cho S, Franzblau SG, Miller MJ. Syntheses and Antituberculosis Activity of 1,3-Benzothiazinone Sulfoxide and Sulfone Derived from BTZ043. *ACS medicinal chemistry letters*. 2015; 6(2):128-33. PubMed [journal] PMID: 25699139, PMCID: PMC4329575

50. Gao W, Kim JY, Anderson JR, Akopian T, Hong S, Jin YY, Kandror O, Kim JW, Lee IA, Lee SY, McAlpine JB, Mulugeta S, Sunoqrot S, Wang Y, Yang SH, Yoon TM, Goldberg AL, Pauli GF, Suh JW, Franzblau SG, Cho S. The cyclic peptide ecumicin targeting ClpC1 is active against *Mycobacterium tuberculosis* in vivo. *Antimicrobial agents and chemotherapy*. 2015; 59(2):880-9. PubMed [journal] PMID: 25421483, PMCID: PMC4335914

51. Cho S, Lee HS, Franzblau S. Microplate Alamar Blue Assay (MABA) and Low Oxygen Recovery Assay (LORA) for *Mycobacterium tuberculosis*. *Methods in molecular biology* (Clifton, N.J.). 2015; 1285:281-92. PubMed [journal] PMID: 25779323

52. Upton AM, Cho S, Yang TJ, Kim Y, Wang Y, Lu Y, Wang B, Xu J, Mdluli K, Ma Z, Franzblau SG. In vitro and in vivo activities of the nitroimidazole TBA-354 against *Mycobacterium tuberculosis*. *Antimicrobial agents and chemotherapy*. 2015; 59(1):136-44. PubMed [journal] PMID: 25331696, PMCID: PMC4291341

53. Macabeo AP, Martinez FP, Kurtán T, Tóth L, Mándi A, Schmidt S, Heilmann J, Alejandro GJ, Knorn M, Dahse HM, Franzblau SG. Tetrahydroxanthene-1,3(2H)-dione derivatives from *Uvaria valderramensis*. *Journal of natural products*. 2014; 77(12):2711-5. PubMed [journal] PMID: 25372601

54. Gao W, Kim JY, Chen SN, Cho SH, Choi J, Jaki BU, Jin YY, Lankin DC, Lee JE, Lee SY, McAlpine JB, Napolitano JG, Franzblau SG, Suh JW, Pauli GF. Discovery and characterization of the tuberculosis drug lead ecumicin. *Organic letters*. 2014; 16(23):6044-7. NIHMSID: NIHMS859545 PubMed [journal] PMID: 25409285, PMCID: PMC5450905

55. Li W, Upadhyay A, Fontes FL, North EJ, Wang Y, Crans DC, Grzegorzewicz AE, Jones V, Franzblau SG, Lee RE, Crick DC, Jackson M. Novel insights into the mechanism

of inhibition of MmpL3, a target of multiple pharmacophores in *Mycobacterium tuberculosis*. *Antimicrobial agents and chemotherapy*. 2014; 58(11):6413-23. PubMed [journal] PMID: 25136022, PMCID: PMC4249373

56. Moraski GC, Oliver AG, Markley LD, Cho S, Franzblau SG, Miller MJ. Scaffold-switching: an exploration of 5,6-fused bicyclic heteroaromatics systems to afford antituberculosis activity akin to the imidazo[1,2-a]pyridine-3-carboxylates. *Bioorganic & medicinal chemistry letters*. 2014; 24(15):3493-8. NIHMSID: NIHMS601528 PubMed [journal] PMID: 24909079, PMCID:PMC4096046

57. Lirio SB, Macabeo AP, Paragas EM, Knorn M, Kohls P, Franzblau SG, Wang Y, Aguinaldo MA. Antitubercular constituents from *Premna odorata* Blanco. *Journal of ethnopharmacology*. 2014; 154(2):471-4. PubMed [journal] PMID: 24768632

58. Tiwari R, Möllmann U, Cho S, Franzblau SG, Miller PA, Miller MJ. Design and Syntheses of Anti-Tuberculosis Agents Inspired by BTZ043 Using a Scaffold Simplification Strategy. *ACS medicinal chemistry letters*. 2014; 5(5):587-91. PubMed [journal] PMID: 24900885, PMCID: PMC4027775

59. Schinkovitz A, Kaur A, Urban E, Zehl M, Páchníková G, Wang Y, Kretschmer N, Slaninová I, Pauli GF, Franzblau SG, Krupitza G, Bauer R, Kopp B. Cytotoxic constituents from *Lobaria scrobiculata* and a comparison of two bioassays for their evaluation. *Journal of natural products*. 2014; 77(4):1069-73. PubMed [journal] PMID: 24725159

60. Ramos Alvarenga RF, Wan B, Inui T, Franzblau SG, Pauli GF, Jaki BU. Airborne antituberculosis activity of *Eucalyptus citriodora* essential oil. *Journal of natural products*. 2014; 77(3):603-10. PubMed [journal] PMID: 24641242

61. Elkington BG, Sydara K, Newsome A, Hwang CH, Lankin DC, Simmler C, Napolitano JG, Ree R, Graham JG, Gyllenhaal C, Bouamanivong S, Souliya O, Pauli GF, Franzblau SG, Soejarto DD. New finding of an anti-TB compound in the genus *Marsypopetalum* (Annonaceae) from a traditional herbal remedy of Laos. *Journal of Ethnopharmacology*. 2014; 151(2):903-11. NIHMSID: NIHMS548343 PubMed [journal] PMID: 24333958, PMCID: PMC3933013

62. Pieroni M, Wan B, Cho S, Franzblau SG, Costantino G. Design, synthesis and investigation on the structure-activity relationships of N-substituted 2-aminothiazole derivatives as antitubercular agents. *European journal of medicinal chemistry*. 2014; 72:26-34. PubMed [journal] PMID: 24333612

63. Luo S, Kang HS, Kronic A, Chlipala GE, Cai G, Chen WL, Franzblau SG, Swanson SM, Orjala J. Carbamidocyclophanes F and G with Anti-*Mycobacterium tuberculosis* Activity from the Cultured Freshwater Cyanobacterium *Nostoc* sp. *Tetrahedron letters*. 2014; 55(3):686-689. NIHMSID: NIHMS552171 PubMed [journal] PMID: 25225453, PMCID: PMC4161986

64. Lv W, Banerjee B, Molland KL, Seleem MN, Ghafoor A, Hamed MI, Wan B, Franzblau SG, Mesecar AD, Cushman M. Synthesis of 3-(3-aryl-pyrrolidin-1-yl)-5-aryl-1,2,4-triazines that have antibacterial activity and also inhibit inorganic pyrophosphatase. *Bioorganic & medicinal chemistry*. 2014; 22(1):406-18. NIHMSID: NIHMS542009 PubMed [journal] PMID:24315189, PMCID: PMC3914758
65. Klein LL, Petukhova V, Wan B, Wang Y, Santasiero BD, Lankin DC, Pauli GF, Franzblau SG. A novel indigoid anti-tuberculosis agent. *Bioorganic & medicinal chemistry letters*. 2014; 24(1):268-70. NIHMSID: NIHMS543586 PubMed [journal] PMID: 24314672, PMCID: PMC3922930
66. Cai G, Napolitano JG, McAlpine JB, Wang Y, Jaki BU, Suh JW, Yang SH, Lee IA, Franzblau SG, Pauli GF, Cho S. Hytramycins V and I, anti-*Mycobacterium tuberculosis* hexapeptides from a *Streptomyces hygrosopicus* strain. *Journal of natural products*. 2013; 76(11):2009-18. PubMed [journal] PMID: 24224794
67. Schmidt AW, Choi TA, Theumer G, Franzblau SG, Knölker HJ. Inhibitory effect of oxygenated cholestan-3 β -ol derivatives on the growth of *Mycobacterium tuberculosis*. *Bioorganic & medicinal chemistry letters*. 2013; 23(22):6111-3. PubMed [journal] PMID: 24084159
68. Bukhari SN, Franzblau SG, Jantan I, Jasamai M. Current prospects of synthetic curcumin analogs and chalcone derivatives against *mycobacterium tuberculosis*. *Medicinal chemistry (Sharjah (United Arab Emirates))*. 2013; 9(7):897-903. PubMed [journal] PMID: 23305394
69. Wijeratne EM, He H, Franzblau SG, Hoffman AM, Gunatilaka AA. Phomapyrrolidones A-C, antitubercular alkaloids from the endophytic fungus *Phoma* sp. NRRL 46751. *Journal of natural products*. 2013; 76(10):1860-5. NIHMSID: NIHMS528837 PubMed [journal] PMID: 24079882, PMCID: PMC3896239
70. Hwang CH, Jaki BU, Klein LL, Lankin DC, McAlpine JB, Napolitano JG, Fryling NA, Franzblau SG, Cho SH, Stamets PE, Wang Y, Pauli GF. Chlorinated coumarins from the polypore mushroom *Fomitopsis officinalis* and their activity against *Mycobacterium tuberculosis*. *Journal of natural products*. 2013; 76(10):1916-22. NIHMSID: NIHMS529198 PubMed [journal] PMID: 24087924, PMCID: PMC3851412
71. Grant SS, Kawate T, Nag PP, Silvis MR, Gordon K, Stanley SA, Kazyanskaya E, Nietupski R, Golas A, Fitzgerald M, Cho S, Franzblau SG, Hung DT. Identification of novel inhibitors of nonreplicating *Mycobacterium tuberculosis* using a carbon starvation model. *ACS chemical biology*. 2013; 8(10):2224-34. NIHMSID: NIHMS515407 PubMed [journal] PMID: 23898841, PMCID: PMC3864639
72. McClay K, Wan B, Wang Y, Cho S, Yu J, Santarsiero B, Mehboob S, Johnson M, Franzblau S, Steffan R. A novel combinatorial biocatalytic approach for producing antibacterial compounds effective against *Mycobacterium tuberculosis* (TB). *Applied microbiology and biotechnology*. 2013; 97(16):7151-63. PubMed [journal]

PMID: 23749163

73. Wang F, Sambandan D, Halder R, Wang J, Batt SM, Weinrick B, Ahmad I, Yang P, Zhang Y, Kim J, Hassani M, Huszar S, Trefzer C, Ma Z, Kaneko T, Mdluli KE, Franzblau S, Chatterjee AK, Johnsson K, Mikusova K, Besra GS, Fütterer K, Robbins SH, Barnes SW, Walker JR, Jacobs WR Jr, Schultz PG. Identification of a small molecule with activity against drug-resistant and persistent tuberculosis. *Proceedings of the National Academy of Sciences of the United States of America*. 2013; 110(27):E2510-7. PubMed [journal] PMID: 23776209, PMCID: PMC3703973
74. Lauinger IL, Vivas L, Perozzo R, Stairiker C, Tarun A, Zloh M, Zhang X, Xu H, Tonge PJ, Franzblau SG, Pham DH, Esguerra CV, Crawford AD, Maes L, Tasdemir D. Potential of lichen secondary metabolites against *Plasmodium* liver stage parasites with FAS-II as the potential target. *Journal of natural products*. 2013; 76(6):1064-70. NIHMSID: NIHMS595759 PubMed [journal] PMID: 23806111, PMCID: PMC4119598
75. Pavan FR, Poelhsitz GV, da Cunha LV, Barbosa MI, Leite SR, Batista AA, Cho SH, Franzblau SG, de Camargo MS, Resende FA, Varanda EA, Leite CQ. In vitro and in vivo activities of ruthenium(II) phosphine/diimine/picolinate complexes (SCAR) against *Mycobacterium tuberculosis*. *PloS one*. 2013; 8(5):e64242. PubMed [journal] PMID: 23724039, PMCID: PMC3665843
76. Ekins S, Reynolds RC, Franzblau SG, Wan B, Freundlich JS, Bunin BA. Enhancing hit identification in *Mycobacterium tuberculosis* drug discovery using validated dual-event Bayesian models. *PloS one*. 2013; 8(5):e63240. PubMed [journal] PMID: 23667592, PMCID: PMC3647004
77. Cai G, Pauli GF, Wang Y, Jaki BU, Franzblau SG. Rapid determination of growth inhibition of *Mycobacterium tuberculosis* by GC-MS/MS quantitation of tuberculostearic acid. *Tuberculosis (Edinburgh, Scotland)*. 2013; 93(3):322-9. PubMed [journal] PMID: 23454100
78. Hwang JM, Oh T, Kaneko T, Upton AM, Franzblau SG, Ma Z, Cho SN, Kim P. Design, synthesis, and structure-activity relationship studies of tryptanthrins as antitubercular agents. *Journal of natural products*. 2013; 76(3):354-67. PubMed [journal] PMID: 23360475
79. Qiu F, Cai G, Jaki BU, Lankin DC, Franzblau SG, Pauli GF. Quantitative purity-activity relationships of natural products: the case of anti-tuberculosis active triterpenes from *Oplopanax horridus*. *Journal of natural products*. 2013; 76(3):413-9. PubMed [journal] PMID: 23356207
80. Mehnaz S, Saleem RS, Yameen B, Pianet I, Schnakenburg G, Pietraszkiewicz H, Valeriote F, Josten M, Sahl HG, Franzblau SG, Gross H. Lahorenoic acids A-C, ortho-dialkyl-substituted aromatic acids from the biocontrol strain *Pseudomonas aurantiaca* PB-St2. *Journal of natural products*. 2013; 76(2):135-41. PubMed

[journal] PMID: 23402329

81. Poce G, Bates RH, Alfonso S, Coccozza M, Porretta GC, Ballell L, Rullas J, Ortega F, De Logu A, Agus E, La Rosa V, Pasca MR, De Rossi E, Wae B, Franzblau SG, Manetti F, Botta M, Biava M. Improved BM212 MmpL3 inhibitor analogue shows efficacy in acute murine model of tuberculosis infection. *PloS one*. 2013; 8(2):e56980. PubMed [journal] PMID: 23437287, PMCID: PMC3578785

82. Pegan SD, Rukserree K, Capodagli GC, Baker EA, Krasnykh O, Franzblau SG, Mesecar AD. Active site loop dynamics of a class IIa fructose 1,6-bisphosphate aldolase from *Mycobacterium tuberculosis*. *Biochemistry*. 2013; 52(5):912-25. NIHMSID: NIHMS596555 PubMed [journal] PMID: 23298222, PMCID: PMC4170518

83. Brugarolas P, Movahedzadeh F, Wang Y, Zhang N, Bartek IL, Gao YN, Voskuil MI, Franzblau SG, He C. The oxidation-sensing regulator (MosR) is a new redox-dependent transcription factor in *Mycobacterium tuberculosis*. *The Journal of biological chemistry*. 2012; 287(45):37703-12. PubMed [journal] PMID: 22992749, PMCID: PMC3488046

84. Tukulula M, Little S, Gut J, Rosenthal PJ, Wan B, Franzblau SG, Chibale K. The design, synthesis, in silico ADME profiling, antiplasmodial and antimycobacterial evaluation of new arylamino quinoline derivatives. *European journal of medicinal chemistry*. 2012; 57:259-67. PubMed [journal] PMID: 23064162

85. Tabarrini O, Sabatini S, Massari S, Pieroni M, Franzblau SG, Cecchetti V. 6-hydrogen-8-methylquinolones active against replicating and non-replicating *Mycobacterium tuberculosis*. *Chemical biology & drug design*. 2012; 80(5):781-6. PubMed [journal] PMID: 22889240

86. Franzblau SG, DeGroot MA, Cho SH, Andries K, Nuermberger E, Orme IM, Mdluli K, Angulo-Barturen I, Dick T, Dartois V, Lenaerts AJ. Comprehensive analysis of methods used for the evaluation of compounds against *Mycobacterium tuberculosis*. *Tuberculosis (Edinburgh, Scotland)*. 2012; 92(6):453-88. PubMed [journal] PMID: 22940006

87. Silveira GP, Ferreira M, Fernandes L, Moraski GC, Cho S, Hwang C, Franzblau SG, Sá MM. Allylic thiocyanates as a new class of antitubercular agents. *Bioorganic & medicinal chemistry letters*. 2012; 22(20):6486-9. PubMed [journal] PMID: 22967767

88. Juárez-Hernández RE, Franzblau SG, Miller MJ. Syntheses of mycobactin analogs as potent and selective inhibitors of *Mycobacterium tuberculosis*. *Organic & biomolecular chemistry*. 2012; 10(37):7584-93. NIHMSID: NIHMS405717 PubMed [journal] PMID: 22895786, PMCID: PMC3482464

89. Macabeo AP, Tudla FA, Krohn K, Franzblau SG. Antitubercular activity of the semi-polar extractives of *Uvaria rufa*. *Asian Pacific journal of tropical medicine*. 2012; 5(10):777-80. PubMed [journal] PMID: 23043915

90. Inui T, Wang Y, Pro SM, Franzblau SG, Pauli GF. Unbiased evaluation of bioactive secondary metabolites in complex matrices. *Fitoterapia*. 2012; 83(7):1218-25. NIHMSID: NIHMS391161 PubMed [journal] PMID: 22766306, PMCID: PMC3434706
91. Kim H, Lantvit D, Hwang CH, Kroll DJ, Swanson SM, Franzblau SG, Orjala J. Indole alkaloids from two cultured cyanobacteria, *Westiellopsis* sp. and *Fischerella muscicola*. *Bioorganic & medicinal chemistry*. 2012; 20(17):5290-5. NIHMSID: NIHMS392703 PubMed [journal] PMID: 22863526, PMCID: PMC3429353
92. Kunciw DL, Liechty JJ, Mitchell MO, Wan B, Franzblau SG. Structural requirements for the antitubercular quaternized triflupromazine pharmacophore. *Bioorganic & medicinal chemistry letters*. 2012; 22(17):5679-80. PubMed [journal] PMID:22850215
93. Dulla B, Wan B, Franzblau SG, Kapavarapu R, Reiser O, Iqbal J, Pal M. Construction and functionalization of fused pyridine ring leading to novel compounds as potential antitubercular agents. *Bioorganic & medicinal chemistry letters*. 2012; 22(14):4629-35. PubMed [journal] PMID: 22726932
94. Chopra S, Koolpe GA, Tambo-Ong AA, Matsuyama KN, Ryan KJ, Tran TB, Doppalapudi RS, Riccio ES, Iyer LV, Green CE, Wan B, Franzblau SG, Madrid PB. Discovery and optimization of benzotriazine di-N-oxides targeting replicating and nonreplicating *Mycobacterium tuberculosis*. *Journal of medicinal chemistry*. 2012; 55(13):6047-60. NIHMSID: NIHMS386203 PubMed [journal] PMID: 22691154, PMCID: PMC3395780
95. Kumarasamy M, Theivendren P, Govindarajan R, Franzblau SG, Ramalingam K. Carcinogenic effects of N-nitroso-3-(substituted phenylimino)-indolin-2-one derivatives. *Journal of pharmacy & bioallied sciences*. 2012; 4(3):207-11. PubMed [journal] PMID: 22923962, PMCID: PMC3425169
96. Macabeo AP, Avila JA, Alejandro GJ, Franzblau SG, Kouam SF, Hussain H, Krohn K. Villarinol, a new alkenoyloxyalkenol derivative from the endemic Philippine Rubiaceae species *Villaria odorata*. *Natural product communications*. 2012; 7(6):779-80. PubMed [journal] PMID: 22816306
97. Macabeo AP, Gehle D, Krohn K, Franzblau SG, Aguinaldo AM. Photoactivated [3+2] addition of 6,7-seco-angustilobine B to fullerene [C60]. *Natural product communications*. 2012; 7(6):743-5. PubMed [journal] PMID: 22816297
98. Ji C, Lin W, Moraski GC, Thanassi JA, Pucci MJ, Franzblau SG, Möllmann U, Miller MJ. Syntheses and biological studies of novel spiropiperazinyl oxazolidinone antibacterial agents using a spirocyclic diene derived acylNitroso Diels-Alder reaction. *Bioorganic & medicinal chemistry*. 2012; 20(11):3422-8. NIHMSID: NIHMS375400 PubMed [journal] PMID: 22560837, PMCID: PMC3363956
99. Shingnapurkar D, Dandawate P, Anson CE, Powell AK, Afrasiabi Z, Sinn E, Pandit S, Venkateswara Swamy K, Franzblau S, Padhye S. Synthesis and characterization of

pyruvate-isoniazid analogs and their copper complexes as potential ICL inhibitors. *Bioorganic & medicinal chemistry letters*. 2012; 22(9):3172-6. PubMed [journal] PMID: 22475559

100. Gill SK, Xu H, Kirchhoff PD, Cierpicki T, Turbiak AJ, Wan B, Zhang N, Peng KW, Franzblau SG, Garcia GA, Showalter HD. Structure-based design of novel benzoxazinorifamycins with potent binding affinity to wild-type and rifampin-resistant mutant *Mycobacterium tuberculosis* RNA polymerases. *Journal of medicinal chemistry*. 2012; 55(8):3814-26. PubMed [journal] PMID: 22452568

101. Debnath J, Siricilla S, Wan B, Crick DC, Lenaerts AJ, Franzblau SG, Kurosu M. Discovery of selective menaquinone biosynthesis inhibitors against *Mycobacterium tuberculosis*. *Journal of medicinal chemistry*. 2012; 55(8):3739-55. NIHMSID: NIHMS366951 PubMed [journal] PMID: 22449052, PMCID: PMC3375340

102. Moraski GC, Markley LD, Chang M, Cho S, Franzblau SG, Hwang CH, Boshoff H, Miller MJ. Generation and exploration of new classes of antitubercular agents: The optimization of oxazolines, oxazoles, thiazolines, thiazoles to imidazo[1,2-a]pyridines and isomeric 5,6-fused scaffolds. *Bioorganic & medicinal chemistry*. 2012; 20(7):2214-20. NIHMSID: NIHMS357929 PubMed [journal] PMID:22391032, PMCID: PMC3304000

103. Lu X, Liu X, Wan B, Franzblau SG, Chen L, Zhou C, You Q. Synthesis and evaluation of anti-tubercular and antibacterial activities of new 4-(2,6-dichlorobenzyloxy)phenyl thiazole, oxazole and imidazole derivatives. Part 2. *European journal of medicinal chemistry*. 2012; 49:164-71. PubMed [journal] PMID: 22264895

104. Chopra S, Matsuyama K, Tran T, Malerich JP, Wan B, Franzblau SG, Lun S, Guo H, Maiga MC, Bishai WR, Madrid PB. Evaluation of gyrase B as a drug target in *Mycobacterium tuberculosis*. *The Journal of antimicrobial chemotherapy*. 2012; 67(2):415-21. PubMed [journal] PMID: 22052686, PMCID: PMC3254195

105. Blaser A, Palmer BD, Sutherland HS, Kmentova I, Franzblau SG, Wan B, Wang Y, Ma Z, Thompson AM, Denny WA. Structure-activity relationships for amide-, carbamate-, and urea-linked analogues of the tuberculosis drug (6S)-2-nitro-6-[[4-(trifluoromethoxy)benzyl]oxy]-6,7-dihydro-5H-imidazo[2,1-b][1,3]oxazine (PA-824). *Journal of medicinal chemistry*. 2012; 55(1):312-26. PubMed [journal] PMID: 22148391

106. Lawal TO, Adeniyi BA, Adegoke AO, Franzblau SG, Mahady GB. In vitro susceptibility of *Mycobacterium tuberculosis* to extracts of *Eucalyptus camaldulensis* and *Eucalyptus torelliana* and isolated compounds. *Pharmaceutical biology*. 2012; 50(1):92-8. PubMed [journal] PMID: 22129202

107. Lilienkampf A, Pieroni M, Franzblau SG, Bishai WR, Kozikowski AP. Derivatives of 3-isoxazolecarboxylic acid esters: a potent and selective compound class against replicating and nonreplicating *Mycobacterium tuberculosis*. *Current topics in medicinal chemistry*. 2012; 12(7):729-34. PubMed [journal] PMID: 22283815

108. Gyllenhaal C, Kadushin MR, Southavong B, Sydara K, Bouamanivong S, Xaiveu M, Xuan LT, Hiep NT, Hung NV, Loc PK, Dac LX, Bich TQ, Cuong NM, Ly HM, Zhang HJ, Franzblau SG, Xie H, Riley MC, Elkington BG, Nguyen HT, Waller DP, Ma CY, Tamez P, Tan GT, Pezzuto JM, Soejarto DD. Ethnobotanical approach versus random approach in the search for new bioactive compounds: support of a hypothesis. *Pharmaceutical biology*. 2012; 50(1):30-41. NIHMSID: NIHMS424976 PubMed [journal] PMID: 22196581, PMCID: PMC3533514

109. Soejarto DD, Gyllenhaal C, Kadushin MR, Southavong B, Sydara K, Bouamanivong S, Xaiveu M, Zhang HJ, Franzblau SG, Tan GT, Pezzuto JM, Riley MC, Elkington BG, Waller DP. An ethnobotanical survey of medicinal plants of Laos toward the discovery of bioactive compounds as potential candidates for pharmaceutical development. *Pharmaceutical biology*. 2012; 50(1):42-60. NIHMSID: NIHMS424959 PubMed [journal] PMID: 22136442, PMCID: PMC3534868

110. Jin Y, Gill SK, Kirchhoff PD, Wan B, Franzblau SG, Garcia GA, Showalter HD. Synthesis and structure-activity relationships of novel substituted 8-amino, 8-thio, and 1,8-pyrazole congeners of antitubercular rifamycin S and rifampin. *Bioorganic & medicinal chemistry letters*. 2011; 21(20):6094-9. PubMed [journal] PMID: 21903392

111. Thompson AM, Sutherland HS, Palmer BD, Kmentova I, Blaser A, Franzblau SG, Wan B, Wang Y, Ma Z, Denny WA. Synthesis and structure-activity relationships of varied ether linker analogues of the antitubercular drug (6S)-2-nitro-6-[[4-(trifluoromethoxy)benzyl]oxy]-6,7-dihydro-5h-imidazo[2,1-b][1,3]oxazine (PA-824). *Journal of medicinal chemistry*. 2011; 54(19):6563-85. PubMed [journal] PMID: 21846109

112. Pavan FR, Poelhsitz GV, Barbosa MI, Leite SR, Batista AA, Ellena J, Sato LS, Franzblau SG, Moreno V, Gambino D, Leite CQ. Ruthenium(II) phosphine/diimine/picolinate complexes: inorganic compounds as agents against tuberculosis. *European journal of medicinal chemistry*. 2011; 46(10):5099-107. PubMed [journal] PMID: 21875763

113. Lu X, Wan B, Franzblau SG, You Q. Design, synthesis and anti-tubercular evaluation of new 2-acylated and 2-alkylated amino-5-(4-(benzyloxy)phenyl)thiophene-3-carboxylic acid derivatives. Part 1. *European journal of medicinal chemistry*. 2011; 46(9):3551-63. PubMed [journal] PMID: 21641695

114. Gutka HJ, Rukseree K, Wheeler PR, Franzblau SG, Movahedzadeh F. glpX gene of *Mycobacterium tuberculosis*: heterologous expression, purification, and enzymatic characterization of the encoded fructose 1,6-bisphosphatase II. *Applied biochemistry and biotechnology*. 2011; 164(8):1376-89. PubMed [journal] PMID:21451980

115. Bungihan ME, Tan MA, Kitajima M, Kogure N, Franzblau SG, Dela Cruz TE, Takayama H, Nonato MG. Bioactive metabolites of *Diaporthe* sp. P133, an endophytic fungus isolated from *Pandanus amaryllifolius*. *Journal of natural medicines*. 2011; 65(3-4):606-9. PubMed [journal] PMID: 21394664
116. Macabeo AP, Vidar WS, Chen X, Decker M, Heilmann J, Wan B, Franzblau SG, Galvez EV, Aguinaldo MA, Cordell GA. *Mycobacterium tuberculosis* and cholinesterase inhibitors from *Voacanga globosa*. *European journal of medicinal chemistry*. 2011; 46(7):3118-23. PubMed [journal] PMID: 21546135
117. Vázquez-Laslop N, Klepacki D, Mulhearn DC, Ramu H, Krasnykh O, Franzblau S, Mankin AS. Role of antibiotic ligand in nascent peptide-dependent ribosome stalling. *Proceedings of the National Academy of Sciences of the United States of America*. 2011; 108(26):10496-501. PubMed [journal] PMID: 21670252, PMCID: PMC3127923
118. Higuchi CT, Sannomiya M, Pavan FR, Leite SR, Sato DN, Franzblau SG, Sacramento LV, Vilegas W, Leite CQ. *Byrsonima fagifolia* Niedenzu Apolar Compounds with Antitubercular Activity. *Evidence-based complementary and alternative medicine : eCAM*. 2011; 2011:128349. PubMed [journal] PMID: 19091782, PMCID: PMC3135853
119. Moraski GC, Markley LD, Hipskind PA, Boshoff H, Cho S, Franzblau SG, Miller MJ. Advent of Imidazo[1,2-a]pyridine-3-carboxamides with Potent Multi- and Extended Drug Resistant Antituberculosis Activity. *ACS medicinal chemistry letters*. 2011; 2(6):466-470. NIHMSID: NIHMS284127 PubMed [journal] PMID: 21691438, PMCID: PMC3117668
120. Lu JP, Yuan XH, Yuan H, Wang WL, Wan B, Franzblau SG, Ye QZ. Inhibition of *Mycobacterium tuberculosis* methionine aminopeptidases by bengamide derivatives. *ChemMedChem*. 2011; 6(6):1041-8. NIHMSID: NIHMS387632 PubMed [journal] PMID: 21465667, PMCID: PMC3504309
121. Gutka HJ, Franzblau SG, Movahedzadeh F, Abad-Zapatero C. Crystallization and preliminary X-ray characterization of the glpX-encoded class II fructose-1,6-bisphosphatase from *Mycobacterium tuberculosis*. *Acta crystallographica. Section F, Structural biology and crystallization communications*. 2011; 67(Pt 6):710-3. PubMed [journal] PMID: 21636919, PMCID:PMC3107150
122. Khoje AD, Charnock C, Wan B, Franzblau S, Gundersen LL. Synthesis and antimycobacterial activities of non-purine analogs of 6-aryl-9-benzylpurines: Imidazopyridines, pyrrolopyridines, benzimidazoles, and indoles. *Bioorganic & medicinal chemistry*. 2011; 19(11):3483-91. PubMed [journal] PMID: 21546254
123. Singh K, Singh K, Wan B, Franzblau S, Chibale K, Balzarini J. Facile transformation of Biginelli pyrimidin-2(1H)-ones to pyrimidines. In vitro evaluation as inhibitors of *Mycobacterium tuberculosis* and modulators of cytostatic activity. *European journal of medicinal chemistry*. 2011; 46(6):2290-4.

PubMed [journal] PMID: 21450375

124. Truong NB, Pham CV, Doan HT, Nguyen HV, Nguyen CM, Nguyen HT, Zhang HJ, Fong HH, Franzblau SG, Soejarto DD, Chau MV. Antituberculosis cycloartane triterpenoids from *Radermachera boniana*. *Journal of natural products*. 2011; 74(5):1318-22. NIHMSID: NIHMS287113 PubMed [journal] PMID: 21469696, PMCID: PMC3703769

125. Hans RH, Wiid IJ, van Helden PD, Wan B, Franzblau SG, Gut J, Rosenthal PJ, Chibale K. Novel thiolactone-isatin hybrids as potential antimalarial and antitubercular agents. *Bioorganic & medicinal chemistry letters*. 2011; 21(7):2055-8. PubMed [journal] PMID: 21376591

126. Kmentova I, Sutherland HS, Palmer BD, Blaser A, Franzblau SG, Wan B, Wang Y, Ma Z, Denny WA, Thompson AM. Synthesis and structure-activity relationships of aza- and diazabiphenyl analogues of the antitubercular drug (6S)-2-nitro-6-[[4-(trifluoromethoxy)benzyl]oxy]-6,7-dihydro-5H-imidazo[2,1-b][1,3]oxazine (PA-824). *Journal of medicinal chemistry*. 2010; 53(23):8421-39. PubMed [journal] PMID: 21069962

127. Mo S, Kronic A, Santarsiero BD, Franzblau SG, Orjala J. Hapalindole-related alkaloids from the cultured cyanobacterium *Fischerella ambigua*. *Phytochemistry*. 2010; 71(17-18):2116-23. NIHMSID: NIHMS242177 PubMed [journal] PMID: 20965528, PMCID: PMC2981615

128. Raman N, Jeyamurugan R, Senthilkumar R, Rajkapoor B, Franzblau SG. In vivo and in vitro evaluation of highly specific thiolate carrier group copper(II) and zinc(II) complexes on Ehrlich ascites carcinoma tumor model. *European journal of medicinal chemistry*. 2010; 45(11):5438-51. PubMed [journal] PMID: 20864225

129. Khoje AD, Kulendrn A, Charnock C, Wan B, Franzblau S, Gundersen LL. Synthesis of non-purine analogs of 6-aryl-9-benzylpurines, and their antimycobacterial activities. Compounds modified in the imidazole ring. *Bioorganic & medicinal chemistry*. 2010; 18(20):7274-82. PubMed [journal] PMID: 20833056

130. Chen L, Zhou B, Zhang S, Wu L, Wang Y, Franzblau SG, Zhang ZY. Identification and characterization of novel inhibitors of mPTPB, an essential virulent phosphatase from *Mycobacterium tuberculosis*. *ACS medicinal chemistry letters*. 2010; 1(7):355-359. NIHMSID: NIHMS220566 PubMed [journal] PMID: 21116447, PMCID: PMC2992434

131. Pieroni M, Lilienkampf A, Wang Y, Wan B, Cho S, Franzblau SG, Kozikowski AP. NOC chemistry for tuberculosis-further investigations on the structure-activity relationships of antitubercular isoxazole-3-carboxylic acid ester derivatives. *ChemMedChem*. 2010; 5(10):1667-72. PubMed [journal] PMID: 20718072

132. Stout EP, Prudhomme J, Roch KL, Fairchild CR, Franzblau SG, Aalbersberg W, Hay ME, Kubanek J. Unusual antimalarial meroditerpenes from tropical red macroalgae.

Bioorganic & medicinal chemistry letters. 2010; 20(19):5662-5. NIHMSID:NIHMS228891
PubMed [journal] PMID: 20801038, PMCID: PMC2939151

133. Villaflores OB, Macabeo AP, Gehle D, Krohn K, Franzblau SG, Aguinaldo AM. Phytoconstituents from *Alpinia purpurata* and their in vitro inhibitory activity against *Mycobacterium tuberculosis*. *Pharmacognosy magazine*. 2010; 6(24):339-44. PubMed [journal] PMID: 21120040, PMCID: PMC2992151

134. Sturdy M, Kronic A, Cho S, Franzblau S, Orjala J. Eucapsitrione, an anti-*Mycobacterium tuberculosis* anthraquinone derivative from the cultured freshwater cyanobacterium *Eucapsis* sp. *Journal of natural products*. 2010; 73(8):1441-3. NIHMSID: NIHMS248005 PubMed [journal] PMID: 20795743, PMCID: PMC2972581

135. Pavan FR, da S Maia PI, Leite SR, Deflon VM, Batista AA, Sato DN, Franzblau SG, Leite CQ. Thiosemicarbazones, semicarbazones, dithiocarbazates and hydrazide/hydrazones: anti-*Mycobacterium tuberculosis* activity and cytotoxicity. *European journal of medicinal chemistry*. 2010; 45(5):1898-905. PubMed [journal] PMID: 20163897

136. Moraski GC, Chang M, Villegas-Estrada A, Franzblau SG, Möllmann U, Miller MJ. Structure-activity relationship of new anti-tuberculosis agents derived from oxazoline and oxazole benzyl esters. *European journal of medicinal chemistry*. 2010; 45(5):1703-16. NIHMSID: NIHMS170231 PubMed [journal] PMID: 20116900, PMCID:PMC2843756

137. Gordien AY, Gray AI, Ingleby K, Franzblau SG, Seidel V. Activity of Scottish plant, lichen and fungal endophyte extracts against *Mycobacterium aurum* and *Mycobacterium tuberculosis*. *Phytotherapy research : PTR*. 2010; 24(5):692-8. PubMed [journal] PMID: 19827032

138. Scher JM, Schinkovitz A, Zapp J, Wang Y, Franzblau SG, Becker H, Lankin DC, Pauli GF. Structure and anti-TB activity of trachylobanes from the liverwort *Jungermannia exsertifolia* ssp. *cordifolia*. *Journal of natural products*. 2010; 73(4):656-63. PubMed [journal] PMID: 20353194

139. Inui T, Wang Y, Nikolic D, Smith DC, Franzblau SG, Pauli GF. Sesquiterpenes from *Oplopanax horridus*. *Journal of natural products*. 2010; 73(4):563-7. PubMed [journal] PMID: 20218656

140. Aponte JC, Vaisberg AJ, Castillo D, Gonzalez G, Estevez Y, Arevalo J, Quiliano M, Zimic M, Verástegui M, Málaga E, Gilman RH, Bustamante JM, Tarleton RL, Wang Y, Franzblau SG, Pauli GF, Sauvain M, Hammond GB. Trypanoside, anti-tuberculosis, leishmanicidal, and cytotoxic activities of tetrahydrobenzothienopyrimidines. *Bioorganic & medicinal chemistry*. 2010; 18(8):2880-6. PubMed [journal] PMID: 20356752

141. Fang M, Toogood RD, Macova A, Ho K, Franzblau SG, McNeil MR, Sanders DA, Palmer DR. Succinylphosphonate esters are competitive inhibitors of MenD that show active-site discrimination between homologous alpha-ketoglutarate-decarboxylating enzymes. *Biochemistry*. 2010; 49(12):2672-9. PubMed [journal] PMID: 20199062
142. Na M, Ding Y, Wang B, Tekwani BL, Schinazi RF, Franzblau S, Kelly M, Stone R, Li XC, Ferreira D, Hamann MT. Anti-infective discorhabdins from a deep-water alaskan sponge of the genus *Latrunculia*. *Journal of natural products*. 2010; 73(3):383-7. NIHMSID: NIHMS788198 PubMed [journal] PMID: 20337497, PMCID: PMC4883701
143. Zhou B, He Y, Zhang X, Xu J, Luo Y, Wang Y, Franzblau SG, Yang Z, Chan RJ, Liu Y, Zheng J, Zhang ZY. Targeting mycobacterium protein tyrosine phosphatase B for antituberculosis agents. *Proceedings of the National Academy of Sciences of the United States of America*. 2010; 107(10):4573-8. PubMed [journal] PMID: 20167798, PMCID: PMC2842023
144. Moraski GC, Franzblau SG, Miller MJ. UTILIZATION OF THE SUZUKI COUPLING TO ENHANCE THE ANTITUBERCULOSIS ACTIVITY OF ARYL OXAZOLES. *Heterocycles*. 2010; 80(2):977-988. NIHMSID: NIHMS296141 PubMed [journal] PMID: 22003265, PMCID: PMC3192507
145. Lin AS, Stout EP, Prudhomme J, Le Roch K, Fairchild CR, Franzblau SG, Aalbersberg W, Hay ME, Kubanek J. Bioactive bromophycolides R-U from the Fijian red alga *Callophycus serratus*. *Journal of natural products*. 2010; 73(2):275-8. NIHMSID: NIHMS380743 PubMed [journal] PMID: 20141173, PMCID: PMC3375676
146. Hans RH, Guantai EM, Lategan C, Smith PJ, Wan B, Franzblau SG, Gut J, Rosenthal PJ, Chibale K. Synthesis, antimalarial and antitubercular activity of acetylenic chalcones. *Bioorganic & medicinal chemistry letters*. 2010; 20(3):942-4. PubMed [journal] PMID: 20045640
147. Mao J, Yuan H, Wang Y, Wan B, Pak D, He R, Franzblau SG. Synthesis and antituberculosis activity of novel mefloquine-isoxazole carboxylic esters as prodrugs. *Bioorganic & medicinal chemistry letters*. 2010; 20(3):1263-8. PubMed [journal] PMID: 20022500
148. Hong Q, Minter DE, Franzblau SG, Arfan M, Amin H, Reinecke MG. Anti-tuberculosis compounds from *Mallotus philippinensis*. *Natural product communications*. 2010; 5(2):211-7. PubMed [journal] PMID: 20334129
149. Pavan FR, Poelhsitz GV, do Nascimento FB, Leite SR, Batista AA, Deflon VM, Sato DN, Franzblau SG, Leite CQ. Ruthenium (II) phosphine/picolinate complexes as antimycobacterial agents. *European journal of medicinal chemistry*. 2010; 45(2):598-601. PubMed [journal] PMID: 19931948
150. Lilienkampf A, Pieroni M, Wan B, Wang Y, Franzblau SG, Kozikowski AP. Rational design of 5-phenyl-3-isoxazolecarboxylic acid ethyl esters as growth inhibitors

of *Mycobacterium tuberculosis*. a potent and selective series for further drug development. *Journal of medicinal chemistry*. 2010; 53(2):678-88. PubMed [journal] PMID: 20000577

151. Guo S, Song Y, Huang Q, Yuan H, Wan B, Wang Y, He R, Beconi MG, Franzblau SG, Kozikowski AP. Identification, synthesis, and pharmacological evaluation of tetrahydroindazole based ligands as novel antituberculosis agents. *Journal of medicinal chemistry*. 2010; 53(2):649-59. PubMed [journal] PMID: 20000470

152. Sutherland HS, Blaser A, Kmentova I, Franzblau SG, Wan B, Wang Y, Ma Z, Palmer BD, Denny WA, Thompson AM. Synthesis and structure-activity relationships of antitubercular 2-nitroimidazooxazines bearing heterocyclic side chains. *Journal of medicinal chemistry*. 2010; 53(2):855-66. PubMed [journal] PMID: 19968290

153. Maroz A, Shinde SS, Franzblau SG, Ma Z, Denny WA, Palmer BD, Anderson RF. Release of nitrite from the antitubercular nitroimidazole drug PA-824 and analogues upon one-electron reduction in protic, non-aqueous solvent. *Organic & biomolecular chemistry*. 2010; 8(2):413-8. PubMed [journal] PMID: 20066278

154. Palmer BD, Thompson AM, Sutherland HS, Blaser A, Kmentova I, Franzblau SG, Wan B, Wang Y, Ma Z, Denny WA. Synthesis and structure-activity studies of biphenyl analogues of the tuberculosis drug (6S)-2-nitro-6-[[4-(trifluoromethoxy)benzyl]oxy]-6,7-dihydro-5H-imidazo[2,1-b][1,3]oxazine (PA-824). *Journal of medicinal chemistry*. 2010; 53(1):282-94. PubMed [journal] PMID: 19928920

155. Gordien AY, Gray AI, Franzblau SG, Seidel V. Antimycobacterial terpenoids from *Juniperus communis* L. (Cupressaceae). *Journal of ethnopharmacology*. 2009; 126(3):500-5. PubMed [journal] PMID: 19755141

156. Mao J, Yuan H, Wang Y, Wan B, Pieroni M, Huang Q, van Breemen RB, Kozikowski AP, Franzblau SG. From serendipity to rational antituberculosis drug discovery of mefloquine-isoxazole carboxylic acid esters. *Journal of medicinal chemistry*. 2009; 52(22):6966-78. PubMed [journal] PMID: 19863050

157. Huang Q, Mao J, Wan B, Wang Y, Brun R, Franzblau SG, Kozikowski AP. Searching for new cures for tuberculosis: design, synthesis, and biological evaluation of 2-methylbenzothiazoles. *Journal of medicinal chemistry*. 2009; 52(21):6757-67. PubMed [journal] PMID: 19817445

158. Mo S, Kronic A, Pegan SD, Franzblau SG, Orjala J. An antimicrobial guanidine-bearing sesterterpene from the cultured cyanobacterium *Scytonema* sp. *Journal of natural products*. 2009; 72(11):2043-5. NIHMSID: NIHMS159715 PubMed [journal] PMID: 19888742, PMCID: PMC2988765

159. Pieroni M, Lilienkamp A, Wan B, Wang Y, Franzblau SG, Kozikowski AP. Synthesis, biological evaluation, and structure-activity relationships for

5-[(E)-2-arylethenyl]-3-isoxazolecarboxylic acid alkyl ester derivatives as valuable antitubercular chemotypes. *Journal of medicinal chemistry*. 2009; 52(20):6287-96. PubMed [journal] PMID: 19757815

160. Guo S, Tipparaju SK, Pegan SD, Wan B, Mo S, Orjala J, Mesecar AD, Franzblau SG, Kozikowski AP. Natural product leads for drug discovery: isolation, synthesis and biological evaluation of 6-cyano-5-methoxyindolo[2,3-a]carbazole based ligands as antibacterial agents. *Bioorganic & medicinal chemistry*. 2009; 17(20):7126-30. NIHMSID: NIHMS148369 PubMed [journal] PMID: 19783449, PMCID: PMC2983099

161. Zhao Y, Bacher A, Illarionov B, Fischer M, Georg G, Ye QZ, Fanwick PE, Franzblau SG, Wan B, Cushman M. Discovery and development of the covalent hydrates of trifluoromethylated pyrazoles as riboflavin synthase inhibitors with antibiotic activity against *Mycobacterium tuberculosis*. *The Journal of organic chemistry*. 2009; 74(15):5297-303. PubMed [journal] PMID: 19545132

162. Lu E, Franzblau S, Onyuksel H, Popescu C. Preparation of aminoglycoside-loaded chitosan nanoparticles using dextran sulphate as a counterion. *Journal of microencapsulation*. 2009; 26(4):346-54. PubMed [journal] PMID: 18726818

163. Lilienkampf A, Mao J, Wan B, Wang Y, Franzblau SG, Kozikowski AP. Structure-activity relationships for a series of quinoline-based compounds active against replicating and nonreplicating *Mycobacterium tuberculosis*. *Journal of medicinal chemistry*. 2009; 52(7):2109-18. PubMed [journal] PMID: 19271749

164. Lane AL, Stout EP, Lin AS, Prudhomme J, Le Roch K, Fairchild CR, Franzblau SG, Hay ME, Aalbersberg W, Kubanek J. Antimalarial bromophycolides J-Q from the Fijian red alga *Callophycus serratus*. *The Journal of organic chemistry*. 2009; 74(7):2736-42. NIHMSID: NIHMS101824 PubMed [journal] PMID: 19271727, PMCID: PMC2707147

165. Pegan SD, Rukxeree K, Franzblau SG, Mesecar AD. Structural basis for catalysis of a tetrameric class IIa fructose 1,6-bisphosphate aldolase from *Mycobacterium tuberculosis*. *Journal of molecular biology*. 2009; 386(4):1038-53. NIHMSID: NIHMS88701 PubMed [journal] PMID: 19167403, PMCID: PMC2654403

166. Thompson AM, Blaser A, Anderson RF, Shinde SS, Franzblau SG, Ma Z, Denny WA, Palmer BD. Synthesis, reduction potentials, and antitubercular activity of ring A/B analogues of the bioreductive drug (6S)-2-nitro-6-[[4-(trifluoromethoxy)benzyl]oxy]-6,7-dihydro-5H-imidazo[2,1-b][1,3]oxazine (PA-824). *Journal of medicinal chemistry*. 2009; 52(3):637-45. PubMed [journal] PMID: 19099398

167. Miller MJ, Zhu H, Xu Y, Wu C, Walz AJ, Vergne A, Roosenberg JM, Moraski G, Minnick AA, McKee-Dolence J, Hu J, Fennell K, Kurt Dolence E, Dong L, Franzblau S, Malouin F, Möllmann U. Utilization of microbial iron assimilation processes for the development of new antibiotics and inspiration for the design of new

anticancer agents. *Biometals : an international journal on the role of metal ions in biology, biochemistry, and medicine*. 2009; 22(1):61-75. NIHMSID: NIHMS583767 PubMed [journal] PMID: 19130268, PMCID: PMC4066965

168. Figueiredo R, Moiteiro C, Medeiros MA, da Silva PA, Ramos D, Spies F, Ribeiro MO, Lourenço MC, Júnior IN, Gaspar MM, Cruz ME, Curto MJ, Franzblau SG, Orozco H, Aguilar D, Hernandez-Pando R, Costa MC. Synthesis and evaluation of rifabutin analogs against *Mycobacterium avium* and H(37)Rv, MDR and NRP *Mycobacterium tuberculosis*. *Bioorganic & medicinal chemistry*. 2009; 17(2):503-11. PubMed [journal] PMID: 19119013

169. Elkington BG, Southavong B, Sydara K, Souliya O, Vanthanouvong M, Nettavong K, Thammachack B, Pak DH, Riley MC, Franzblau SG, Soejarto DD. Biological evaluation of plants of Laos used in the treatment of tuberculosis in Lao traditional medicine. *Pharmaceutical biology*. 2009; 47(1):26-33. NIHMSID: NIHMS230079 PubMed [journal] PMID: 21479105, PMCID: PMC3071617

170. Karioti A, Skaltsa H, Zhang X, Tonge PJ, Perozzo R, Kaiser M, Franzblau SG, Tasdemir D. Inhibiting enoyl-ACP reductase (FabI) across pathogenic microorganisms by linear sesquiterpene lactones from *Anthemis auriculata*. *Phytomedicine : international journal of phytotherapy and phytopharmacology*. 2008; 15(12):1125-9. PubMed [journal] PMID: 18424102

171. Hurdle JG, Lee RB, Budha NR, Carson EI, Qi J, Scherman MS, Cho SH, McNeil MR, Lenaerts AJ, Franzblau SG, Meibohm B, Lee RE. A microbiological assessment of novel nitrofuranyl amides as anti-tuberculosis agents. *The Journal of antimicrobial chemotherapy*. 2008; 62(5):1037-45. PubMed [journal] PMID: 18693235, PMCID: PMC2566515

172. Wei X, Rodríguez AD, Wang Y, Franzblau SG. Synthesis and in vitro biological evaluation of ring B abeo-sterols as novel inhibitors of *Mycobacterium tuberculosis*. *Bioorganic & medicinal chemistry letters*. 2008; 18(20):5448-50. NIHMSID: NIHMS75285 PubMed [journal] PMID: 18818073, PMCID: PMC2634294

173. Jaki BU, Franzblau SG, Chadwick LR, Lankin DC, Zhang F, Wang Y, Pauli GF. Purity-activity relationships of natural products: the case of anti-TB active ursolic acid. *Journal of natural products*. 2008; 71(10):1742-8. PubMed [journal] PMID: 18798682

174. Mao J, Eoh H, He R, Wang Y, Wan B, Franzblau SG, Crick DC, Kozikowski AP. Structure-activity relationships of compounds targeting *mycobacterium tuberculosis* 1-deoxy-D-xylulose 5-phosphate synthase. *Bioorganic & medicinal chemistry letters*. 2008; 18(19):5320-3. NIHMSID: NIHMS752084 PubMed [journal] PMID: 18783951, PMCID: PMC4784473

175. Yuan H, He R, Wan B, Wang Y, Pauli GF, Franzblau SG, Kozikowski AP. Modification of the side chain of micromolide, an anti-tuberculosis natural product.

Bioorganic & medicinal chemistry letters. 2008; 18(19):5311-5. PubMed [journal] PMID: 18774716

176. Ly LH, Barhoumi R, Cho SH, Franzblau SG, McMurray DN. Vaccination with Bacille-Calmette Guérin promotes mycobacterial control in guinea pig macrophages infected in vivo. *The Journal of infectious diseases*. 2008; 198(5):768-71. PubMed [journal] PMID: 18627245

177. Vicente E, Villar R, Burguete A, Solano B, Pérez-Silanes S, Aldana I, Maddry JA, Lenaerts AJ, Franzblau SG, Cho SH, Monge A, Goldman RC. Efficacy of quinoxaline-2-carboxylate 1,4-di-N-oxide derivatives in experimental tuberculosis. *Antimicrobial agents and chemotherapy*. 2008; 52(9):3321-6. PubMed [journal] PMID: 18625764, PMCID: PMC2533452

178. Villar R, Vicente E, Solano B, Pérez-Silanes S, Aldana I, Maddry JA, Lenaerts AJ, Franzblau SG, Cho SH, Monge A, Goldman RC. In vitro and in vivo antimycobacterial activities of ketone and amide derivatives of quinoxaline 1,4-di-N-oxide. *The Journal of antimicrobial chemotherapy*. 2008; 62(3):547-54. NIHMSID: NIHMS58357 PubMed [journal] PMID: 18502817, PMCID: PMC2574959

179. Zhu ZJ, Krasnykh O, Pan D, Petukhova V, Yu G, Liu Y, Liu H, Hong S, Wang Y, Wan B, Liang W, Franzblau SG. Structure-activity relationships of macrolides against *Mycobacterium tuberculosis*. *Tuberculosis (Edinburgh, Scotland)*. 2008; 88 Suppl 1:S49-63. PubMed [journal] PMID: 18762153

180. Deng S, Wang Y, Inui T, Chen SN, Farnsworth NR, Cho S, Franzblau SG, Pauli GF. Anti-TB polyynes from the roots of *Angelica sinensis*. *Phytotherapy research : PTR*. 2008; 22(7):878-82. NIHMSID: NIHMS58201 PubMed [journal] PMID: 18567055, PMCID: PMC2504689

181. Zhou Y, Beeler AB, Cho S, Wang Y, Franzblau SG, Snyder JK. Library synthesis using 5,6,7,8-tetrahydro-1,6-naphthyridines as scaffolds. *Journal of combinatorial chemistry*. 2008; 10(4):534-40. PubMed [journal] PMID: 18517255

182. Velaparthi S, Brunsteiner M, Uddin R, Wan B, Franzblau SG, Petukhov PA. 5-tert-butyl-N-pyrazol-4-yl-4,5,6,7-tetrahydrobenzo[d]isoxazole-3-carboxamide derivatives as novel potent inhibitors of *Mycobacterium tuberculosis* pantothenate synthetase: initiating a quest for new antitubercular drugs. *Journal of medicinal chemistry*. 2008; 51(7):1999-2002. PubMed [journal] PMID: 18335974

183. Tan MA, Takayama H, Aimi N, Kitajima M, Franzblau SG, Nonato MG. Antitubercular triterpenes and phytosterols from *Pandanus tectorius* Soland. var. *laevis*. *Journal of natural medicines*. 2008; 62(2):232-5. PubMed [journal] PMID: 18404330

184. Sayed KA, Khalil AA, Yousaf M, Labadie G, Kumar GM, Franzblau SG, Mayer AM, Avery MA, Hamann MT. Semisynthetic studies on the manzamine alkaloids. *Journal of natural products*. 2008; 71(3):300-8. NIHMSID: NIHMS790927 PubMed [journal] PMID:

18198837, PMCID: PMC4895205

185. Tasdemir D, Brun R, Franzblau SG, Sezgin Y, Calis I. Evaluation of antiprotozoal and antimycobacterial activities of the resin glycosides and the other metabolites of *Scrophularia cryptophila*. *Phytomedicine : international journal of phytotherapy and phytopharmacology*. 2008; 15(3):209-15. PubMed [journal] PMID: 17761408

186. Mao J, Wang Y, Wan B, Kozikowski AP, Franzblau SG. Design, synthesis, and pharmacological evaluation of mefloquine-based ligands as novel antituberculosis agents. *ChemMedChem*. 2007; 2(11):1624-30. PubMed [journal] PMID: 17680579

187. Lane AL, Stout EP, Hay ME, Prusak AC, Hardcastle K, Fairchild CR, Franzblau SG, Le Roch K, Prudhomme J, Aalbersberg W, Kubanek J. Callophycoic acids and callophycols from the Fijian red alga *Callophycus serratus*. *The Journal of organic chemistry*. 2007; 72(19):7343-51. NIHMSID: NIHMS380748 PubMed [journal] PMID: 17715978, PMCID: PMC3374858

188. Mao J, Wan B, Wang Y, Franzblau SG, Kozikowski AP. HTS, chemical hybridization, and drug design identify a chemically unique antituberculosis agent-coupling serendipity and rational approaches to drug discovery. *ChemMedChem*. 2007; 2(6):811-3. PubMed [journal] PMID: 17455191

189. Aguinaldo AM, Dalangin-Mallari VM, Macabeo AP, Byrne LT, Abe F, Yamauchi T, Franzblau SG. Quinoline alkaloids from *Lunasia amara* inhibit *Mycobacterium tuberculosis* H37Rv in vitro. *International journal of antimicrobial agents*. 2007; 29(6):744-6. PubMed [journal] PMID: 17399957

190. Inui T, Wang Y, Deng S, Smith DC, Franzblau SG, Pauli GF. Counter-current chromatography based analysis of synergy in an anti-tuberculosis ethnobotanical. *Journal of chromatography. A*. 2007; 1151(1-2):211-5. NIHMSID: NIHMS24024 PubMed [journal] PMID: 17316661, PMCID: PMC2533621

191. Case RJ, Wang Y, Franzblau SG, Soejarto DD, Maitainaho L, Piskaut P, Pauli GF. Advanced applications of counter-current chromatography in the isolation of anti-tuberculosis constituents from *Dracaena angustifolia*. *Journal of chromatography. A*. 2007; 1151(1-2):169-74. PubMed [journal] PMID: 17296204

192. Cho SH, Warit S, Wan B, Hwang CH, Pauli GF, Franzblau SG. Low-oxygen-recovery assay for high-throughput screening of compounds against nonreplicating *Mycobacterium tuberculosis*. *Antimicrobial agents and chemotherapy*. 2007; 51(4):1380-5. PubMed [journal] PMID: 17210775, PMCID: PMC1855511

193. Bate AB, Kalin JH, Fooksman EM, Amorose EL, Price CM, Williams HM, Rodig MJ, Mitchell MO, Cho SH, Wang Y, Franzblau SG. Synthesis and antitubercular activity of quaternized promazine and promethazine derivatives. *Bioorganic & medicinal chemistry letters*. 2007; 17(5):1346-8. PubMed [journal] PMID: 17188865

194. Miller MJ, Zhao G, Vakulenko S, Franzblau S, Möllmann U. New C-3' hydroxamate-substituted and more lipophilic cyclic hydroxamate cephalosporin derivatives as a potential new generation of selective antimicrobial agents. *Organic & biomolecular chemistry*. 2006; 4(22):4178-85. PubMed [journal] PMID: 17312974
195. Zhao G, Miller MJ, Franzblau S, Wan B, Möllmann U. Syntheses and studies of quinolone-cephalosporins as potential anti-tuberculosis agents. *Bioorganic & medicinal chemistry letters*. 2006; 16(21):5534-7. PubMed [journal] PMID: 16945530
196. Bapela NB, Lall N, Fourie PB, Franzblau SG, Van Rensburg CE. Activity of 7-methyljuglone in combination with antituberculous drugs against *Mycobacterium tuberculosis*. *Phytomedicine : international journal of phytotherapy and phytopharmacology*. 2006; 13(9-10):630-5. PubMed [journal] PMID: 16987644
197. Cho SH, Goodlett D, Franzblau S. ICAT-based comparative proteomic analysis of non-replicating persistent *Mycobacterium tuberculosis*. *Tuberculosis (Edinburgh, Scotland)*. 2006; 86(6):445-60. PubMed [journal] PMID: 16376151
198. Tasdemir D, Brun R, Yardley V, Franzblau SG, Rüedi P. Antituberculous and antiprotozoal activities of primin, a natural benzoquinone: in vitro and in vivo studies. *Chemistry & biodiversity*. 2006; 3(11):1230-7. PubMed [journal] PMID: 17193236
199. Lee S, Kong DH, Yun SH, Lee KR, Lee KP, Franzblau SG, Lee EY, Chang CL. Evaluation of a modified antimycobacterial susceptibility test using Middlebrook 7H10 agar containing 2,3-diphenyl-5-thienyl-(2)-tetrazolium chloride. *Journal of microbiological methods*. 2006; 66(3):548-51. PubMed [journal] PMID: 16563534
200. Choi TA, Czerwonka R, Fröhner W, Krahl MP, Reddy KR, Franzblau SG, Knölker HJ. Synthesis and activity of carbazole derivatives against *Mycobacterium tuberculosis*. *ChemMedChem*. 2006; 1(8):812-5. PubMed [journal] PMID: 16902934
201. Rao KV, Donia MS, Peng J, Garcia-Palomero E, Alonso D, Martinez A, Medina M, Franzblau SG, Tekwani BL, Khan SI, Wahyuono S, Willett KL, Hamann MT. Manzamine B and E and ircinal A related alkaloids from an Indonesian *Acanthostrongylophora* sponge and their activity against infectious, tropical parasitic, and Alzheimer's diseases. *Journal of natural products*. 2006; 69(7):1034-40. NIHMSID: NIHMS795698 PubMed [journal] PMID: 16872140, PMCID: PMC4917200
202. Case RJ, Franzblau SG, Wang Y, Cho SH, Soejarto DD, Pauli GF. Ethnopharmacological evaluation of the informant consensus model on anti-tuberculosis claims among the Manus. *Journal of ethnopharmacology*. 2006; 106(1):82-9. PubMed [journal] PMID: 16423480
203. Jayaprakash S, Iso Y, Wan B, Franzblau SG, Kozikowski AP. Design, synthesis, and

SAR studies of mefloquine-based ligands as potential antituberculosis agents. *ChemMedChem*. 2006; 1(6):593-7. PubMed [journal] PMID: 16892398

204. Carballeira NM, Sanabria D, Cruz C, Parang K, Wan B, Franzblau S. 2,6-hexadecadiynoic acid and 2,6-nonadecadiynoic acid: novel synthesized acetylenic fatty acids as potent antifungal agents. *Lipids*. 2006; 41(5):507-11. NIHMSID: NIHMS13105 PubMed [journal] PMID: 16933795, PMCID: PMC1626269

205. Jaki BU, Franzblau SG, Cho SH, Pauli GF. Development of an extraction method for mycobacterial metabolome analysis. *Journal of pharmaceutical and biomedical analysis*. 2006; 41(1):196-200. NIHMSID: NIHMS358597 PubMed [journal] PMID: 16314064, PMCID: PMC3384498

206. Gu JQ, Wang Y, Franzblau SG, Montenegro G, Timmermann BN. Dereplication of pentacyclic triterpenoids in plants by GC-El/MS. *Phytochemical analysis : PCA*. 2006; 17(2):102-6. PubMed [journal] PMID: 16634286

207. Soejarto DD, Zhang HJ, Fong HH, Tan GT, Ma CY, Gyllenhaal C, Riley MC, Kadushin MR, Franzblau SG, Bich TQ, Cuong NM, Hiep NT, Loc PK, Xuan le T, Hai NV, Hung NV, Chien NQ, Binh le T, Vu BM, Ly HM, Southavong B, Sydara K, Bouamanivong S, Pezzuto JM, Rose WC, Dietzman GR, Miller BE, Thuy TV. "Studies on biodiversity of Vietnam and Laos" 1998-2005: examining the impact. *Journal of natural products*. 2006; 69(3):473-81. PubMed [journal] PMID: 16562860

208. Pauli GF, Case RJ, Inui T, Wang Y, Cho S, Fischer NH, Franzblau SG. New perspectives on natural products in TB drug research. *Life sciences*. 2005; 78(5):485-94. PubMed [journal] PMID: 16243360

209. Gutierrez-Lugo MT, Wang Y, Franzblau SG, Suarez E, Timmermann BN. Antitubercular sterols from *Thalia multiflora* Horkel ex Koernicke. *Phytotherapy research : PTR*. 2005; 19(10):876-80. PubMed [journal] PMID: 16261518

210. Rivero-Cruz I, Acevedo L, Guerrero JA, Martínez S, Bye R, Pereda-Miranda R, Franzblau S, Timmermann BN, Mata R. Antimycobacterial agents from selected Mexican medicinal plants. *The Journal of pharmacy and pharmacology*. 2005; 57(9):1117-26. PubMed [journal] PMID: 16105233

211. Soejarto DD, Fong HH, Tan GT, Zhang HJ, Ma CY, Franzblau SG, Gyllenhaal C, Riley MC, Kadushin MR, Pezzuto JM, Xuan LT, Hiep NT, Hung NV, Vu BM, Loc PK, Dac LX, Binh LT, Chien NQ, Hai NV, Bich TQ, Cuong NM, Southavong B, Sydara K, Bouamanivong S, Ly HM, Thuy TV, Rose WC, Dietzman GR. Ethnobotany/ethnopharmacology and mass bioprospecting: issues on intellectual property and benefit-sharing. *Journal of ethnopharmacology*. 2005; 100(1-2):15-22. PubMed [journal] PMID: 15993554

212. Akihisa T, Franzblau SG, Tokuda H, Tagata M, Ukiya M, Matsuzawa T, Metori K, Kimura Y, Suzuki T, Yasukawa K. Antitubercular activity and inhibitory effect on Epstein-Barr virus activation of sterols and polyisoprenepolyols from an edible

mushroom, *Hypsizigus marmoreus*. *Biological & pharmaceutical bulletin*. 2005; 28(6):1117-9. PubMed [journal] PMID: 15930759

213. Macabeo AP, Krohn K, Gehle D, Read RW, Brophy JJ, Cordell GA, Franzblau SG, Aguinaldo AM. Indole alkaloids from the leaves of Philippine *Alstonia scholaris*. *Phytochemistry*. 2005; 66(10):1158-62. PubMed [journal] PMID: 15924920

214. Falzari K, Zhu Z, Pan D, Liu H, Hongmanee P, Franzblau SG. In vitro and in vivo activities of macrolide derivatives against *Mycobacterium tuberculosis*. *Antimicrobial agents and chemotherapy*. 2005; 49(4):1447-54. PubMed [journal] PMID: 15793125, PMCID: PMC1068601

215. Ma C, Case RJ, Wang Y, Zhang HJ, Tan GT, Van Hung N, Cuong NM, Franzblau SG, Soejarto DD, Fong HH, Pauli GF. Anti-tuberculosis constituents from the stem bark of *Micromelum hirsutum*. *Planta medica*. 2005; 71(3):261-7. NIHMSID: NIHMS233000 PubMed [journal] PMID: 15770548, PMCID: PMC2940840

216. Franzblau S. A potentially new treatment for tuberculosis; will a diarylquinoline work for leprosy? *International journal of leprosy and other mycobacterial diseases : official organ of the International Leprosy Association*. 2005; 73(1):32. PubMed [journal] PMID: 15898838

217. Akihisa T, Franzblau SG, Ukiya M, Okuda H, Zhang F, Yasukawa K, Suzuki T, Kimura Y. Antitubercular activity of triterpenoids from Asteraceae flowers. *Biological & pharmaceutical bulletin*. 2005; 28(1):158-60. PubMed [journal] PMID: 15635183

218. Mata R, Morales I, Pérez O, Rivero-Cruz I, Acevedo L, Enriquez-Mendoza I, Bye R, Franzblau S, Timmermann B. Antimycobacterial compounds from *Piper sanctum*. *Journal of natural products*. 2004; 67(12):1961-8. PubMed [journal] PMID: 15620234

219. Gua JQ, Wang Y, Franzblau SG, Montenegro G, Timmermann BN. Constituents of *Quinchamalium majus* with potential antitubercular activity. *Zeitschrift fur Naturforschung. C, Journal of biosciences*. 2004; 59(11-12):797-802. PubMed [journal] PMID: 15666537

220. Tangallapally RP, Yendapally R, Lee RE, Hevener K, Jones VC, Lenaerts AJ, McNeil MR, Wang Y, Franzblau S, Lee RE. Synthesis and evaluation of nitrofuranylamides as novel antituberculosis agents. *Journal of medicinal chemistry*. 2004; 47(21):5276-83. PubMed [journal] PMID: 15456272

221. Gu JQ, Wang Y, Franzblau SG, Montenegro G, Timmermann BN. Constituents of *Senecio chionophilus* with potential antitubercular activity. *Journal of natural products*. 2004; 67(9):1483-7. PubMed [journal] PMID: 15387646

222. Jaki B, Franzblau S, Pauli GF. An NMR method towards the routine chiral determination of natural products. *Phytochemical analysis : PCA*. 2004; 15(4):213-9. PubMed [journal] PMID: 15311839

223. Carballeira NM, Cruz H, Kwong CD, Wan B, Franzblau S. 2-methoxylated fatty acids in marine sponges: defense mechanism against mycobacteria? *Lipids*. 2004; 39(7):675-80. PubMed [journal] PMID: 15588025
224. Gu JQ, Wang Y, Franzblau SG, Montenegro G, Yang D, Timmermann BN. Antitubercular constituents of *Valeriana laxiflora*. *Planta medica*. 2004; 70(6):509-14. PubMed[journal] PMID: 15229801
225. Woldemichael GM, Gutierrez-Lugo MT, Franzblau SG, Wang Y, Suarez E, Timmermann BN. *Mycobacterium tuberculosis* growth inhibition by constituents of *Sapium haemospermum*. *Journal of natural products*. 2004; 67(4):598-603. PubMed [journal] PMID: 15104489
226. Changsen C, Franzblau SG, Palittapongarnpim P. Improved green fluorescent protein reporter gene-based microplate screening for antituberculosis compounds by utilizing an acetamidase promoter. *Antimicrobial agents and chemotherapy*. 2003; 47(12):3682-7. PubMed [journal] PMID: 14638465, PMCID: PMC296217
227. Peng J, Hu JF, Kazi AB, Li Z, Avery M, Peraud O, Hill RT, Franzblau SG, Zhang F, Schinazi RF, Wirtz SS, Tharnish P, Kelly M, Wahyuono S, Hamann MT. Manadomanzamines A and B: a novel alkaloid ring system with potent activity against mycobacteria and HIV-1. *Journal of the American Chemical Society*. 2003; 125(44):13382-6. NIHMSID: NIHMS796657 PubMed [journal] PMID: 14583033, PMCID: PMC4928190
228. Woldemichael GM, Franzblau SG, Zhang F, Wang Y, Timmermann BN. Inhibitory effect of sterols from *Ruprechtia triflora* and diterpenes from *Calceolaria pinnifolia* on the growth of *Mycobacterium tuberculosis*. *Planta medica*. 2003; 69(7):628-31. PubMed [journal] PMID: 12898418
229. Murillo JI, Encarnación-Dimayuga R, Malmstrøm J, Christophersen C, Franzblau SG. Antimycobacterial flavones from *Haplopappus sonorensis*. *Fitoterapia*. 2003; 74(3):226-30. PubMed [journal] PMID: 12727485
230. Luna-Herrera J, Martínez-Cabrera G, Parra-Maldonado R, Enciso-Moreno JA, Torres-López J, Quesada-Pascual F, Delgadillo-Polanco R, Franzblau SG. Use of receiver operating characteristic curves to assess the performance of a microdilution assay for determination of drug susceptibility of clinical isolates of *Mycobacterium tuberculosis*. *European journal of clinical microbiology & infectious diseases : official publication of the European Society of Clinical Microbiology*. 2003; 22(1):21-7. PubMed [journal] PMID: 12582740
231. Foongladda S, Roengsanthia D, Arjattanakool W, Chuchottaworn C, Chaiprasert A, Franzblau SG. Rapid and simple MTT method for rifampicin and isoniazid susceptibility testing of *Mycobacterium tuberculosis*. *The international journal*

of tuberculosis and lung disease : the official journal of the International Union against Tuberculosis and Lung Disease. 2002; 6(12):1118-22. PubMed[journal] PMID: 12546122

232. Saludes JP, Garson MJ, Franzblau SG, Aguinaldo AM. Antitubercular constituents from the hexane fraction of *Morinda citrifolia* Linn. (Rubiaceae). *Phytotherapy research : PTR*. 2002; 16(7):683-5. PubMed [journal] PMID: 12410555

233. Sandbhor U, Padhye S, Billington D, Rathbone D, Franzblau S, Anson CE, Powell AK. Metal complexes of carboxamidrazone analogs as antitubercular agents. 1. Synthesis, X-ray crystal-structures, spectroscopic properties and antimycobacterial activity against *Mycobacterium tuberculosis* H(37)Rv. *Journal of inorganic biochemistry*. 2002; 90(3-4):127-36. PubMed [journal] PMID: 12031804

234. Antoun MD, Ramos Z, Vazques J, Oquendo I, Proctor GR, Gerena L, Franzblau SG. Evaluation of the flora of Puerto Rico for in vitro antiplasmodial and antimycobacterial activities. *Phytotherapy research : PTR*. 2001; 15(7):638-42. PubMed [journal] PMID: 11746852

235. Cantrell CL, Franzblau SG, Fischer NH. Antimycobacterial plant terpenoids. *Planta medica*. 2001; 67(8):685-94. PubMed [journal] PMID: 11731906

236. Wächter GA, Franzblau SG, Montenegro G, Hoffmann JJ, Maiese WM, Timmermann BN. Inhibition of *Mycobacterium tuberculosis* growth by saringosterol from *Lessonia nigrescens*. *Journal of natural products*. 2001; 64(11):1463-4. PubMed [journal] PMID: 11720535

237. Constantine GH, Karchesy JJ, Franzblau SG, LaFleur LE. (+)-Totarol from *Chamaecyparis nootkatensis* and activity against *Mycobacterium tuberculosis*. *Fitoterapia*. 2001; 72(5):572-4. PubMed [journal] PMID: 11429259

238. Stephens CE, Tanious F, Kim S, Wilson WD, Schell WA, Perfect JR, Franzblau SG, Boykin DW. Diguanidino and "reversed" diamidino 2,5-diarylfurans as antimicrobial agents. *Journal of medicinal chemistry*. 2001; 44(11):1741-8. PubMed [journal] PMID: 11356109

239. Gezginci MH, Martin AR, Franzblau SG. Antimycobacterial activity of substituted isosteres of pyridine- and pyrazinecarboxylic acids. 2. *Journal of medicinal chemistry*. 2001; 44(10):1560-3. PubMed [journal] PMID: 11334565

240. Ma Y, Stern RJ, Scherman MS, Vissa VD, Yan W, Jones VC, Zhang F, Franzblau SG, Lewis WH, McNeil MR. Drug targeting *Mycobacterium tuberculosis* cell wall synthesis: genetics of dTDP-rhamnose synthetic enzymes and development of a microtiter plate-based screen for inhibitors of conversion of dTDP-glucose to dTDP-rhamnose. *Antimicrobial agents and chemotherapy*. 2001; 45(5):1407-16. PubMed[journal] PMID: 11302803, PMCID: PMC90481

241. Wächter GA, Valcic S, Franzblau SG, Suarez E, Timmermann BN. Antitubercular activity of triterpenoids from *Lippia turbinata*. *Journal of natural products*.

2001; 64(1):37-41. PubMed [journal] PMID: 11170663

242. Caldwell CG, Franzblau SG, Suarez E, Timmermann BN. Oleanane triterpenes from *Junellia tridens*. *Journal of natural products*. 2000; 63(12):1611-4. PubMed [journal] PMID: 11141098

243. Mangalindan GC, Talaue MT, Cruz LJ, Franzblau SG, Adams LB, Richardson AD, Ireland CM, Concepcion GP. Agelasine F from a Philippine *Agelas* sp. sponge exhibits in vitro antituberculosis activity. *Planta medica*. 2000; 66(4):364-5. PubMed [journal] PMID: 10865457

244. König GM, Wright AD, Franzblau SG. Assessment of antimycobacterial activity of a series of mainly marine derived natural products. *Planta medica*. 2000; 66(4):337-42. PubMed [journal] PMID: 10865450

245. Cantrell CL, Rajab MS, Franzblau SG, Fronczek FR, Fischer NH. Antimycobacterial ergosterol-5,8-endoperoxide from *Ajuga remota*. *Planta medica*. 1999; 65(8):732-4. PubMed [journal] PMID: 10630115

246. Wächter GA, Valcic S, Flagg ML, Franzblau SG, Montenegro G, Suarez E, Timmermann BN. Antitubercular activity of pentacyclic triterpenoids from plants of Argentina and Chile. *Phytomedicine : international journal of phytotherapy and phytopharmacology*. 1999; 6(5):341-5. PubMed [journal] PMID: 11962541

247. Rugutt JK, Henry CW 3rd, Franzblau SG, Warner IM. NMR and molecular mechanics study of pyrethrins I and II. *Journal of agricultural and food chemistry*. 1999; 47(8):3402-10. PubMed [journal] PMID: 10552664

248. Adams LB, Sinha I, Franzblau SG, Krahenbuhl JL, Mehta RT. Effective treatment of acute and chronic murine tuberculosis with liposome-encapsulated clofazimine. *Antimicrobial agents and chemotherapy*. 1999; 43(7):1638-43. PubMed [journal] PMID: 10390215, PMCID: PMC89336

249. Cantrell CL, Abate L, Fronczek FR, Franzblau SG, Quijano L, Fischer NH. Antimycobacterial eudesmanolides from *Inula helenium* and *Rudbeckia subtomentosa*. *Planta medica*. 1999; 65(4):351-5. PubMed [journal] PMID: 10364842

250. Cantrell CL, Rajab MS, Franzblau SG, Fischer NH. Antimycobacterial triterpenes from *Melia volkensii*. *Journal of natural products*. 1999; 62(4):546-8. PubMed [journal] PMID: 10217705

251. Lu T, Cantrell CL, Robbs SL, Franzblau SG, Fischer NH. Antimycobacterial matricaria esters and lactones from *Astereae* species. *Planta medica*. 1998; 64(7):665-7. PubMed [journal] PMID: 9810277

252. Cantrell CL, Nuñez IS, Castañeda-Acosta J, Foroozesh M, Fronczek FR, Fischer NH, Franzblau SG. Antimycobacterial activities of dehydrocostus lactone and its

oxidation products. *Journal of natural products*. 1998; 61(10):1181-6. PubMed [journal] PMID: 9784148

253. Fischer NH, Lu T, Cantrell CL, Castañeda-Acosta J, Quijano L, Franzblau SG. Antimycobacterial evaluation of germacranolides. *Phytochemistry*. 1998; 49(2):559-64. PubMed [journal] PMID: 9747541

254. Wächter GA, Franzblau SG, Montenegro G, Suarez E, Fortunato RH, Saavedra E, Timmermann BN. A new antitubercular mulinane diterpenoid from *Azorella madreporica* Clos. *Journal of natural products*. 1998; 61(7):965-8. PubMed [journal] PMID: 9677287

255. Wächter GA, Davis MC, Martin AR, Franzblau SG. Antimycobacterial activity of substituted isosteres of pyridine- and pyrazinecarboxylic acids. *Journal of medicinal chemistry*. 1998; 41(13):2436-8. PubMed [journal] PMID: 9632376

256. Davis MC, Franzblau SG, Martin AR. Syntheses and evaluation of benzodiazaborine compounds against *M. tuberculosis* H37Rv in vitro. *Bioorganic & medicinal chemistry letters*. 1998; 8(7):843-6. PubMed [journal] PMID: 9871552

257. Cantrell CL, Fischer NH, Urbatsch L, McGuire MS, Franzblau SG. Antimycobacterial crude plant extracts from South, Central, and North America. *Phytomedicine : international journal of phytotherapy and phytopharmacology*. 1998; 5(2):137-45. PubMed [journal] PMID: 23195767

258. Rajab MS, Cantrell CL, Franzblau SG, Fischer NH. Antimycobacterial activity of (E)-phytol and derivatives: a preliminary structure-activity study. *Planta medica*. 1998; 64(1):2-4. PubMed [journal] PMID: 9491760

259. Franzblau SG, Witzig RS, McLaughlin JC, Torres P, Madico G, Hernandez A, Degnan MT, Cook MB, Quenzer VK, Ferguson RM, Gilman RH. Rapid, low-technology MIC determination with clinical *Mycobacterium tuberculosis* isolates by using the microplate Alamar Blue assay. *Journal of clinical microbiology*. 1998; 36(2):362-6. PubMed [journal] PMID: 9466742, PMCID: PMC104543

260. Collins LA, Torrero MN, Franzblau SG. Green fluorescent protein reporter microplate assay for high-throughput screening of compounds against *Mycobacterium tuberculosis*. *Antimicrobial agents and chemotherapy*. 1998; 42(2):344-7. PubMed [journal] PMID: 9527783, PMCID: PMC105411

261. Collins L, Franzblau SG. Microplate alamar blue assay versus BACTEC 460 system for high-throughput screening of compounds against *Mycobacterium tuberculosis* and *Mycobacterium avium*. *Antimicrobial agents and chemotherapy*. 1997; 41(5):1004-9. PubMed [journal] PMID: 9145860, PMCID: PMC163841

262. Cantrell CL, Lu T, Fronczek FR, Fischer NH, Adams LB, Franzblau SG. Antimycobacterial cycloartanes from *Borrhichia frutescens*. *Journal of natural products*. 1996; 59(12):1131-6. PubMed [journal] PMID: 8988597

263. Fajardo TT Jr, Villahermosa LG, dela Cruz EC, Abalos RM, Franzblau SG, Walsh GP. Minocycline in lepromatous leprosy. *International journal of leprosy and other mycobacterial diseases : official organ of the International Leprosy Association*. 1995; 63(1):8-17. PubMed [journal] PMID: 7730723

264. Lu T, Vargas D, Franzblau SG, Fischer NH. Diterpenes from *Solidago rugosa*. *Phytochemistry*. 1995; 38(2):451-6. PubMed [journal] PMID: 7772306

265. Franzblau SG, Chan GP, Garcia-Ignacio BG, Chavez VE, Livello JB, Jimenez CL, Parrilla ML, Calvo RF, Williams DL, Gillis TP. Clinical trial of fusidic acid for lepromatous leprosy. *Antimicrobial agents and chemotherapy*. 1994; 38(7):1651-4. PubMed [journal] PMID: 7979302, PMCID: PMC284609

266. Chan GP, Garcia-Ignacio BY, Chavez VE, Livello JB, Jimenez CL, Parrilla ML, Franzblau SG. Clinical trial of clarithromycin for lepromatous leprosy. *Antimicrobial agents and chemotherapy*. 1994; 38(3):515-7. PubMed [journal] PMID: 8203847, PMCID: PMC284490

267. Chan GP, Garcia-Ignacio BY, Chavez VE, Livello JB, Jimenez CL, Parrilla ML, Franzblau SG. Clinical trial of sparfloxacin for lepromatous leprosy. *Antimicrobial agents and chemotherapy*. 1994; 38(1):61-5. PubMed [journal] PMID:8141581, PMCID: PMC284397

268. Witzig RS, Franzblau SG. Susceptibility of *Mycobacterium kansasii* to ofloxacin, sparfloxacin, clarithromycin, azithromycin, and fusidic acid. *Antimicrobial agents and chemotherapy*. 1993; 37(9):1997-9. PubMed [journal] PMID: 8239620, PMCID: PMC188108

269. Franzblau SG, Parrilla ML, Chan GP. Sparfloxacin is more bactericidal than ofloxacin against *Mycobacterium leprae* in mice. *International journal of leprosy and other mycobacterial diseases : official organ of the International Leprosy Association*. 1993; 61(1):66-9. PubMed [journal] PMID: 8392100

270. Franzblau SG, Biswas AN, Jenner P, Colston MJ. Double-blind evaluation of BACTEC and Buddemeyer-type radiorespirometric assays for in vitro screening of antileprosy agents. *Leprosy review*. 1992; 63(2):125-33. PubMed [journal] PMID: 1640779

271. Franzblau SG, Biswas AN, Harris EB. Fusidic acid is highly active against extracellular and intracellular *Mycobacterium leprae*. *Antimicrobial agents and chemotherapy*. 1992; 36(1):92-4. PubMed [journal] PMID: 1590706, PMCID: PMC189233

272. Adams LB, Franzblau SG, Vavrin Z, Hibbs JB Jr, Krahenbuhl JL. L-arginine-dependent macrophage effector functions inhibit metabolic activity of

Mycobacterium leprae. Journal of immunology (Baltimore, Md. : 1950). 1991; 147(5):1642-6. PubMed [journal] PMID: 1880420

273. Ramasesh N, Adams LB, Franzblau SG, Krahenbuhl JL. Effects of activated macrophages on Mycobacterium leprae. Infection and immunity. 1991; 59(9):2864-9. PubMed [journal] PMID: 1908824, PMCID: PMC258106

274. Franzblau SG. In vitro activities of aminoglycosides, lincosamides, and rifamycins against Mycobacterium leprae. Antimicrobial agents and chemotherapy. 1991; 35(6):1232-4. PubMed [journal] PMID: 1929269, PMCID: PMC284318

275. Franzblau SG, White KE. Comparative in vitro activities of 20 fluoroquinolones against Mycobacterium leprae. Antimicrobial agents and chemotherapy. 1990; 34(2):229-31. PubMed [journal] PMID: 2183714, PMCID: PMC171562

276. Franzblau SG. Drug susceptibility testing of Mycobacterium leprae in the BACTEC 460 system. Antimicrobial agents and chemotherapy. 1989; 33(12):2115-7. PubMed [journal] PMID: 2694952, PMCID: PMC172831

277. Franzblau SG, White KE, O'Sullivan JF. Structure-activity relationships of tetramethylpiperidine-substituted phenazines against Mycobacterium leprae in vitro. Antimicrobial agents and chemotherapy. 1989; 33(11):2004-5. PubMed [journal] PMID: 2692516, PMCID: PMC172803

278. Franzblau SG, Hastings RC. In vitro and in vivo activities of macrolides against Mycobacterium leprae. Antimicrobial agents and chemotherapy. 1988; 32(12):1758-62. PubMed [journal] PMID: 3072920, PMCID: PMC176013

279. Harris EB, Franzblau SG, Hastings RC. Inhibition of phenolic glycolipid-I synthesis in extracellular Mycobacterium leprae as an indicator of antimicrobial activity. International journal of leprosy and other mycobacterial diseases : official organ of the International Leprosy Association. 1988; 56(4):588-91. PubMed [journal] PMID: 3065422

280. Franzblau SG, O'Sullivan JF. Structure-activity relationships of selected phenazines against Mycobacterium leprae in vitro. Antimicrobial agents and chemotherapy. 1988; 32(10):1583-5. PubMed [journal] PMID: 3056241, PMCID: PMC175923

281. Hastings RC, Gillis TP, Krahenbuhl JL, Franzblau SG. Leprosy. Clinical microbiology reviews. 1988; 1(3):330-48. PubMed [journal] PMID: 3058299, PMCID:PMC358054

282. Franzblau SG, Harris EB. Biophysical optima for metabolism of Mycobacterium leprae. Journal of clinical microbiology. 1988; 26(6):1124-9. PubMed [journal] PMID: 3290244, PMCID: PMC266546

283. Hastings RC, Franzblau SG. Chemotherapy of leprosy. Annual review of pharmacology and toxicology. 1988; 28:231-45. PubMed [journal] PMID: 3289485

284. Franzblau SG. Oxidation of palmitic acid by *Mycobacterium leprae* in an axenic medium. Journal of clinical microbiology. 1988; 26(1):18-21. PubMed [journal] PMID: 3125213, PMCID: PMC266168

285. Franzblau SG, Hastings RC. Rapid in vitro metabolic screen for antileprosy compounds. Antimicrobial agents and chemotherapy. 1987; 31(5):780-3. PubMed [journal] PMID: 3300539, PMCID: PMC174832

286. Sibley LD, Franzblau SG, Krahenbuhl JL. Intracellular fate of *Mycobacterium leprae* in normal and activated mouse macrophages. Infection and immunity. 1987; 55(3):680-5. PubMed [journal] PMID: 3546136, PMCID: PMC260393

287. Franzblau SG, Cross C. Comparative in vitro antimicrobial activity of Chinese medicinal herbs. Journal of ethnopharmacology. 1986; 15(3):279-88. PubMed [journal] PMID: 3724208

288. Franzblau SG, Takeda T, Nakamura M. Mycobacterial plasmids: screening and possible relationship to antibiotic resistance in *Mycobacterium avium*/*Mycobacterium intracellulare*. Microbiology and immunology. 1986; 30(9):903-7. PubMed [journal] PMID: 3540539

289. Franzblau SG, Hinnebusch BJ, Kelley LM, Sinclair NA. Effect of noncoliforms on coliform detection in potable groundwater: improved recovery with an anaerobic membrane filter technique. Applied and environmental microbiology. 1984; 48(1):142-8. PubMed [journal] PMID: 6383216, PMCID: PMC240343

290. Franzblau SG, Sinclair NA. Induction of pyruvate decarboxylase in *Candida utilis*. Mycopathologia. 1983; 83(1):29-33. PubMed [journal] PMID: 6685227

PATENTS

Werbovetz, Karl; Franzblau, Scott Gary; Tidwell, Richard R.; Bakunova, Svetlana; Bakunov, Stanislav. Cationic substituted benzofurans as antimicrobial agents. PCT Int. Appl. (2005), 146 pp. CODEN: PIXXD2 WO 2005055935 A2 20050623 CAN 143:71732 AN 2005:540456

Falzari, Kanakeshwari; Franzblau, Scott G.; Zhu, Zhaohai. Method of treating tuberculosis with macrolide and ketolide erythromycin derivatives. U.S. Pat. Appl. Publ. (2005), 42 pp. CODEN: USXXCO US 2005014706 A1 20050120 CAN142:127557 AN 2005:59967

Zhu, Zhaohai; Franzblau, Scott G.; Yu, Gengli; Krasnykh, Olga; Pan, Dahua; Falzari, Kanakeshwari; Wan, Baojie; Hong, Saweon; Liu, Huiwen. Method of treating tuberculosis with macrolide and ketolide erythromycin derivatives. U.S. Pat. Appl. Publ. (2006), 51 pp., Cont.-in-part of Appl. No. PCT/US2004/022406. CODEN: USXXCO US 2006148730 A1 20060706 CAN 145:117359 AN 2006:657169

DF174 Novel Anti-tuberculosis Cyclohexapeptides from a *Streptomyces hygrosopicus* c.f. species Provisional patent 61/648 291

DE131 Novel Anti-Tuberculosis Cyclic Peptides from *Nonomurea* sp. Provisional patents (4 in all) 61/476,473 and 61/513,403 and 61/555,257 and 61/607,934 converted to PCT patent PCT/KR2012/00293

DF154 Diazaquinomycin and its derivatives for use as antibiotics to inhibit the growth of clinically relevant mycobacteria Provisional Patent 61/620,017 and 61/621,735

DB095/PPA-2 (Expired)- 61/052,783, Compounds for Treatment of Tuberculosis Co-contributors: Choi, Taylor A., Filing Date: 5/13/2008

DB095/PPA (Expired)- 61/042,420, Anti-Tuberculosis Compounds Co-contributors: Kozikowski, Alan, Filing Date: 4/4/2008

DB039/PPA (Expired)- 61/138,284, 3-substituted-1,4-benzoxazines as new anti-tuberculosis agents, Co-contributors: Krasnykh, Olga, Filing Date: 12/17/2008

CZ094/PPA (Expired)- 60/787,822, Design, Synthesis and SAR Studies of Mefloquine- Based Ligands as Potential Antituberculosis Agents
Co-contributors: Iso, Yasuyoshi; Jayaprakash, Sarva; Kozikowski, Alan P.; Wan, Baojie., Filing Date: 3/31/2006

CY086/PPA (Expired)- 60/741,844, Inhibitors of Malate Synthase and their Therapeutic Applications, Co-contributors: Pan, Dahua; Petukhov, Pavel. Filing Date: 12/1/2005

CW026/PCT/JP (Abandoned)- 2006-513310 Biodegradable Nanoparticles Incorporating Highly Hydrophilic Positively Charged Drugs, Co-contributors: Onyuksel, Hayat M.; Popescu, Carmen. Filing Date: 4/26/20

ABSTRACTS AND PRESENTATIONS - >200

INVITED LECTURES, SEMINARS, SYMPOSIA and WORKSHOPS - 94

"Biophysical optima for metabolism of *M. leprae*," Department of Microbiology, Colorado State Univ. 1986.

"In vitro metabolism of *M. leprae*", Leonard Wood Memorial Leprosy Research Center, Cebu, Philippines, 1988.

"The in vitro metabolism of *Mycobacterium leprae*", Symposium on Leprosy. Annual Meeting of the American Society of Microbiology, 88th, Miami, FL., 1988.

"Update on radiorespirometry in clinical and experimental leprosy", Leonard Wood Memorial Leprosy Research Center, Cebu, Philippines, 1989.

"Rapid identification of new antileprosy agents", Research Institute for Tropical Medicine, Metro Manila, Philippines, 1989.

Pre-Congress Microbiology Workshop Committee, 1988, International Leprosy Congress, 13th, The Hague, Netherlands, *International Journal of Leprosy*, 57 (Suppl.):301-302, 1989.

"Leprosy chemotherapy in the '90's" and "Radiorespirometry in the clinical microbiology of leprosy", Post-graduate Course in Dermatology, 8th, Philippine Society of Aesthetic Medicine, Inc., Quezon City, Philippines. 1990.

"Radiorespirometry in the chemotherapy of leprosy", Research Institute for Tropical Medicine, Metro Manila, Philippines, 1992.

"New drug development for leprosy: applications of radiorespirometry", Department of Veterinary Microbiology and Parasitology, School of Veterinary Medicine, Louisiana State University, 1992.

"Natural products screening", NIAID Workshop on Tuberculosis Drug Development, Bethesda, MD, 1992.

"Radiorespirometry in experimental and clinical leprosy" Pre-Congress Workshop on Microbiology, International Leprosy Congress, 14th, Orlando, Fl. 1993. *International Journal of Leprosy* 61:(Suppl.) 722-724, 1993; *Acta Leprologica* 9:17--19, 1994.

"Radiorespirometry in monitoring leprosy clinical drug trials", Pre-Congress Workshop on Chemotherapy, International Leprosy Congress, 14th, Orlando, Fl. 1993. *International Journal of Leprosy* 61:(Suppl.) 729-730, 1993; *Acta Leprologica* 9:9-10, 1994.

"The mycobacteria: rapid in vitro drug screening of synthetic and natural products", Program and Abstracts of the Joint Annual Meeting of the American Society for Tropical Medicine and Hygiene and the American Society of Parasitologists, vol. 49, no.3, 1993, Atlanta, GA, Abstract S53, p.411-412.

"Pre-clinical and clinical evaluation of antimicrobials for tuberculosis and leprosy", American Cyanamid Company, Lederle Laboratories, Pearl River, N.Y., 1994.

"Chemotherapy of leprosy and tuberculosis", Department of Microbiology, Texas A&M College of Medicine, College Station, TX, 1994.

"Discovery of new drugs for leprosy and tuberculosis", Research Center for the Natural Sciences, University of Santo Tomas, Manila, Philippines, 1994.

"Discovery of anti-mycobacterial drugs for tuberculosis and leprosy", Tianjin Medical College, Tianjin, People's Republic of China, 1994.

"New rapidly bactericidal drugs for Hansen's disease", Carville Centennial International Colloquium on the Future of Hansen's Disease Control & Research, Baton Rouge, LA, 1994.

"New drugs and regimens in the chemotherapy of leprosy", Annual Meeting of the American Society for Microbiology, 95th, Washington, D.C., 1995.

"Discovery of novel antitubercular agents", Annual Meeting of the American Society of Pharmacognosy, University of Mississippi, Oxford, MS, 1995.

"Pre-clinical and clinical drug evaluations for tuberculosis and leprosy", Louisiana Institute of Toxicology, School of Pharmacy, Northeast Louisiana University, Monroe, LA, 1996.

"Advances in chemotherapy of leprosy", Tropical Dermatology Postgraduate Course, Mandaluyong, Metro Manila, Philippines, 1996.

"Discovery of novel antitubercular agents", Annual Meeting of the National Cooperative Drug Discovery Groups for the Treatment of Opportunistic Infections, Rockville, MD, 1996.

"Drug susceptibility testing of mycobacteria", Universidad Peruana Cayetano Heredia, Lima, Peru, 1996.

"New drug discovery for tuberculosis and leprosy", Department of Medicinal Chemistry, University of Arizona, Tucson, 1996.

"Microplate Alamar Blue Assay (MABA) and green fluorescent protein expression for high throughput screening", Annual Meeting of the National Cooperative Drug Discovery Groups for the Treatment of Opportunistic Infections, Rockville, MD, 1997.

"New Drugs and Treatment Regimens for Leprosy", Istanbul Leprosy Hospital, Istanbul, Turkey, 1997.

"New drug discovery for tuberculosis and leprosy", Lovelace Respiratory Research Institute, Albuquerque, 1997.

"Evaluation of tetracyclines and phytosterols as anti-tuberculosis agents", Annual Meeting of the National Cooperative Drug Discovery Groups for the Treatment of Opportunistic Infections, Rockville, MD, 1998.

"MABA for clinical and drug screening applications" Annual Conference of the International Union against Tuberculosis and Lung Disease, Bangkok, International Journal of Tuberculosis and Lung Disease 2:supplement 2, S170, 1998.

"Drug discovery for tuberculosis", Mahidol University, Faculty of Science, Bangkok, Thailand, 1999.

"Evaluation of natural products for antituberculosis activity", BIOTEC, Bangkok, Thailand, 1999.

"The search for new antimycobacterial drugs", VIII Simposio Brasileiro de Microbacterias, Salvador, Brazil, 1999.

"Evaluation of natural products for anti-TB activity", University of Ribeirao Preto, Brazil. 1999.

"Pre-clinical and clinical drug evaluation for tuberculosis and leprosy" Universidad de los Andes, Merida, Venezuela, 1999.

"Evaluation of natural products for anti-tuberculosis activity", International Symposium on Recent Developments in the Discovery of Biologically Active Natural Products, Quezon City, Philippines, 1999.

"The search for new TB drugs and rapid, inexpensive, microplate-based assays for TB drug susceptibility testing" National Masan Hospital Clinical Research Center, Massan City, Korea, 1999.

"Drug Discovery for Tuberculosis" Taisho Pharmaceutical Co., Ohmiya, Japan, 1999.

"Drug Discovery for Mycobacterioses", The University of Mississippi, Oxford, MS, 2000.

"Rapid, microplate-based assays for evaluation of drugs against Mycobacterium leprae using phage luciferase expression and Alamar Blue Reduction", Leprosy Research at the New Millenium, Paris, France, 2000, Leprosy Review 71:supplement, Dec. 2000, S74-S76.

"Tuberculosis and Natural Products", ICBG Network Meeting, Fogarty International Center, Bethesda, MD, 2000.

"Conservation of Natural Resources and TB Drug Discovery and Development, BIOTEC, Bangkok, Thailand, 2000.

"Evaluation of natural products for antibacterial activity", Mahasarakham University, Thailand, 2000.

"The Microplate Alamar Blue assay for clinical susceptibility testing and drug screening" and "New Drug Discovery for Tuberculosis", Antimycobacterial Susceptibility Testing: Clinical Application and Development of New Drugs, BIOTEC, Bangkok, Thailand, 2000.

"Development of new anti-TB screening assays" and "TB: new compounds and therapies", Generating New Drugs: from Design to Reality, BIOTEC, Bangkok, Thailand, 2000.

"New TB drugs and regimens", Global Infectious Diseases in our Neighborhood", Global Health Council, New York, 2000.

"Outside looking in: an American scientist's perspective on the training of young Thai scientists", Fulbright Symposium on Perspectives on Science and Education in Thailand, Bangkok, 2000.

"Antimicrobial drug discovery" Naresuan University, Thailand, 2000.

"Writing International Grant Proposals", BIOTEC, Bangkok, Thailand, 2000.

"Strategies for new drug discovery for tuberculosis" UNESP, Araraquara, Brazil, 2002.

"Strategies for TB drug discovery from natural sources", Instituto Pedro Kouri, Havana, Cuba, 2002.

"New drug discovery for TB: current status and strategies", Guest speaker at Science and Technology Research Poster Exhibit of the University of Santo Tomas and Plenary speaker at the 7th Annual Convention of the Natural Product Society of the Philippines, Metro Manila, Philippines, 2002.

"Tuberculosis drug discovery program: screening and target identification", and "Tuberculosis drug discovery program: assay development", University of Santo Tomas Research Week, Metro Manila, Philippines 2002.

"Approaches to new drug discovery for tuberculosis", Vertex Pharmaceuticals, Cambridge, MA, February, 2003.

"New drug discovery for tuberculosis: status and strategies", Icos Inc., Bothell, WA, March, 2003.

"Natural products active against M. tuberculosis: experience of the Institute for Tuberculosis Research", Productos naturales: potenciales agentes terapeuticos en el tratamiento de la tuberculosis. Centro Medico Nacional Siglo XXI, Mexico City, June, 2003.

"One goal, many paths: strategies for new drug discovery for tuberculosis", BioThailand 2003. Pattaya, Thailand, July 2003.

"Strategies for new drug discovery for tuberculosis", Marine Science Institute, University of the Philippines, Quezon City, July 2003.

"Current approaches to TB Drug Discovery", "TB Drug Discovery Program at UIC", "Natural products drug discovery", and "Bioassay development for TB", Universidad de Antioquia, Medellin, Colombia, August 2003.

"Drug discovery for tuberculosis in the ITR", Science Park Forum, National Center for Genetic Engineering and Biotechnology, Bangkok, Thailand, January 2004.

"Drug discovery for tuberculosis in the ITR", Siriraj Hospital, Department of Microbiology, Bangkok, Thailand, January 2004.

"Lead optimization and pre-clinical evaluation of macrolides for the treatment of tuberculosis", Cyted workshop on tuberculosis, Mexico City, March 2004.

"Reporter gene methods to detect anti-TB activity", CYTED workshop on drug susceptibility assay for tuberculosis. FioCruz, Rio de Janeiro, Brazil, July 2004.

64)"Detection of activity against non-replicating persistent TB" CYTED workshop on drug susceptibility assay for tuberculosis. FioCruz, Rio de Janeiro, Brazil, July 2004.

"Cytotoxicity detection methods", CYTED workshop on drug susceptibility assay for tuberculosis. FioCruz, Rio de Janeiro, Brazil, July 2004.

"Target and ligand-based approaches to new drug discovery for tuberculosis". University of Sao Paulo, Brazil, July 2004.

"Exploring macrolides for TB". Annual Stakeholders meeting of the Global Alliance for TB Drug Development, Paris, France, October, 2004.

"Ligand and target-based new drug discovery for tuberculosis" University of Puerto Rico, San Juan, February, 2005.

"Low oxygen recovery assay", Screening Models Working Group meeting at Gordon Research Conference, University of New England, Biddeford, ME, July 2005.

"New drugs against tuberculosis and activity against non-replicating M. tuberculosis", Simposio Brasileiro de Micobacterias, Congresso Brasileiro de Microbiologia, Santos, Brasil, November, 2005.

"Anti-tuberculosis drug discovery research at the University of Illinois at Chicago", UNAERP, Ribeirao Preto, Brasil, November, 2005

"Current anti-tuberculosis agents", Anti-tuberculosis drug discovery at UIC" and "Natural products as anti-tuberculosis agents", mini-symposium at Universidade de Franca, Franca, Brasil, November 2005.

"In vitro assays for replicating and non-replicating Mycobacterium tuberculosis", Sanofi-Aventis mini-symposium on mycobacteria and tuberculosis, Tucson, February 2006.

"New drug discovery strategies for tuberculosis" Pulmonary Research Conference Series, University of Illinois at Chicago, February, 2006.

"Ligand and target-based approaches to new drug discovery for tuberculosis", Technische Universitat Dresden, Germany July 2006.

"Approaches to new drug discovery for tuberculosis", Sanofi-Aventis, Frankfurt, Germany, July 2006.

"Approaches to new TB drug discovery in the ITR", National Center for Genetic Engineering and Biotechnology, Bangkok, Thailand, August 2006.

"Anti-TB leads from Micromelum hirsutum". ICBG Network Meeting. Crystal City, MD, August 2006.

"Chemistry-deficient TB Drug Discovery", No Time to Wait – Bridging Gaps in TB Drug Research and Discovery, Doctors Without Borders Symposium, New York, NY, January 2007

"Discovery of natural product targets for Tuberculosis utilizing innovative Mycobacterium Bioassay". Korean-American Scientists and Engineers Association, US-Korea Conference on Science, Technology, and Entrepreneurship. Reston, Virginia. August 2007.

"New drugs against tuberculosis". 24th Congress of Brazilian Microbiology. Brasilia, Brazil, October 2007.

"Strategies for development of new drugs". XV Congresso Paulista De Farmaceuticos, VII Seminario Internacional De Farmaceuticos, Expofar 2007. Sao Paulo, Brazil, October 2007.

"New perspectives on natural products in tuberculosis drug research". XV Congresso Paulista De Farmaceuticos, VII Seminario Internacional De Farmaceuticos, Expofar 2007. Sao Paulo, Brazil, October 2007.

"Lead identification strategies for TB drug discovery" Department of Medicinal Chemistry, University of Michigan, Ann Arbor, MI, January 2008.

"Anti-tuberculosis lead discovery from parallel synthetic & natural product libraries" Sanofi-Aventis, Toulouse, France, April 2008.

"Phenotypic screening based drug discovery for tuberculosis", 52nd Annual Wind River Conference on Prokaryotic Biology, June 2008.

"Drug discovery for global infectious diseases" American Association of Colleges of Pharmacy, Chicago, July 2008.

"TB drug discovery in academia using an industrial model", Symposium on Drug Discovery, Development and Clinical Research in Academia, University of Puerto Rico, San Juan., September 2008.

"Screening methods for Mycobacterium and their use at the Institute for Tuberculosis Drug Research", National Institute for Pharmaceutical Research and Development, Abuja, Nigeria, October 2008.

"TB drug discovery from natural products" National Institute for Pharmaceutical Research and Development, Abuja, Nigeria, October 2008.

"Essential oils for XDR-TB", 7th Scientific Wholistic Aromatherapy Conference, Pacific Institute of Aromatherapy, San Francisco, February, 2009.

"TB assays standardization: in vitro assays", Post Gordon Research Conference Workshop, Oxford, UK, August 2009.

"Approaches to new TB drug discovery", U. Iowa, March, 2010.

"A new actinomycete-based TB drug discovery pipeline". International Symposium and Annual Meeting of the Korean Society for Applied Biological Chemistry, Pusan, Korea, 2013.

PREVIOUS EXTRAMURAL SUPPORT

Principal Investigator: In vitro evaluation of B-(1-3)-glucanases as systemic antimycotics; \$2,000. American Cancer Society Institutional Grant, 1980.

Co-principal Investigator: Evaluation of non-ionic copolymers in the experimental chemotherapy of leprosy; \$7,625, Cytrx Corporation, 1988.

Principal Investigator: Evaluation of a novel quinolone in the experimental therapy of leprosy; \$9,450. Sterling-Winthrop Research Institute, 1989.

Principal Investigator: Evaluation of in vitro radiorespirometric systems in screening for antileprosy drugs; \$2,000. World Health Organization, 1989.

Co-principal Investigator: The bactericidal activity and pharmacokinetics of AT-4140 (Sparfloxacin) against Mycobacterium leprae in mice; (Manila) \$39,953. 1 January 1991 - 31 December 1991. World Health Organization #900193

Co-principal Investigator: In vitro activity of clarithromycin and temafloxacin against Mycobacterium kansasii; \$6,000. 1992. Abbott Laboratories.

Co-Investigator: In vitro and in vivo evaluation of new drugs for efficacy against strains of M. tuberculosis resistant to isoniazid and rifampin (Multidrug Resistant Tuberculosis); \$55,000. 1 December 1992 - 30 June 1993. Centers for Disease Control.

Principal Investigator: Metabolic maintenance and growth of Mycobacterium leprae; \$247,072. 1 June 1988-31 May 1993. National Institute of Allergy and Infectious Diseases; FIRST award. #R29 AI26265.

Co-Principal Investigator: Rapid in vitro detection of drug-resistant Mycobacterium leprae: (Cebu) \$149,200. 1990-1993. Agency for International Development. #10.099.

Principal Investigator: Laboratory evaluation of anti-tuberculosis compounds and natural products. \$400,000. 15 April 1993 - 31 December 1993. National Institute of Allergy and Infectious Diseases; #Y02-AI-30123

Principal Investigator: In vitro and in vivo activity of trimetrexate against Mycobacterium tuberculosis. \$8,000. US Bioscience.

Co-Principal Investigator: The chemotherapy of leprosy in multibacillary patients; (Manila) \$451,630. 1 February 1991 - 31 January 1996. Tropical Medicine Research Center program; National Institute of Allergy and Infectious Diseases, NIH. #1 P50 AI30601

Associate Program Principal Investigator: Bioactive agents from dryland plants of Latin America; (GWLHDC subcontract = \$60,000). 1 October 1993 - 30 September 1998.

International Cooperative Biodiversity Group program, National Institutes of Health (NIH) and National Science Foundation (NSF), UO1 TW 00316.

Principal Investigator: Microbiological Tuberculosis Screens. \$3,105,732. 1 October 1994 - 30 September 1999. National Institute of Allergy and Infectious Disease, NIH. Intra-agency Agreement Y1-AI-5016.

Principal Investigator: Microbiological Tuberculosis Screens. \$1,037,398. 1 October 1999 - 30 September 2001. National Institute of Allergy and Infectious Disease, NIH. Intra-agency Agreement Y1-AI-5016.

Consultant: Efflux inhibitors for Mycobacterium therapies. \$24,000. NIH SBIR Phase I. PI: Penny Markham, Influx Inc. 1 January 2001 – 30 June 2001.

Principal Investigator: Evaluation of tetracyclines against Mycobacterium tuberculosis and role of efflux pumps in resistance. \$287,405. 1 January 2001 – 31 December 2002. Paratek Pharmaceutical.

Associate Program Principal Investigator: Bioactive agents from dryland biodiversity of Latin America; \$120,000. 1 October 1998 – 30 September 2004. International Cooperative Biodiversity Group program, National Institutes of Health (NIH) and National Science Foundation (NSF), 2 UO1 TW00316-06

Co-investigator: Metabolome of non-replicating M. tuberculosis. \$467,610. 10/1/02 – 9/30/04 NIH/NIAID 1 R21 AI52847-01.

Co-investigator: Evaluation of Alaskan plants for TB treatment. (UIC subcontract ~\$50,000). 9/1/2003-8/31/2004. NIH 1 R43 AT001758-01.

Co-Principal Investigator: Microbiological Tuberculosis Screens. \$957,800. Subcontract from National Hansen's Disease Programs from NIH/NIAID/DAIDS-01-13 contract. 21 September 2001 – 20 June 2006.

Principal Investigator: Lead optimization of 3rd generation macrolides. **Confidential** \$1,413,130. 6/1/2004 – 5/31/2006. Global Alliance for TB Drug Development.

Co-investigator: Cell wall biogenesis – target for new anti-TB drugs. \$42,131. 9/1/02-8/31/07. Subcontract from Colorado State U. from NIH R01 grant.

Co-investigator: Design, synthesis and studies of novel anti-TB agents. \$339,920. 12/1504-1/31/09. Subcontract from University of Notre Dame. NIH/NIAID/DAIDS, 1 R01 AI054193-01A1.

Principal Investigator: Mycobacterium tuberculosis susceptibility testing for Sanofi- Aventis Compounds. \$641,895. 07/01/2007 – 03/31/2015. Sanofi-Aventis

Principal Investigator: In vitro drug combination testing. 10/1/2007-5/31/2008. (Confidential)\$141,150. Global Alliance for TB Drug Development.

Principal Investigator: Vastox Anti-TB compound testing and MOA Studies. \$23,064. 07/01/2007-6/30/2008. Vastox

Principal Investigator: MIC Screening. \$100,000 10/01/2007 – 09/30/2008. JADO Technologies.

Principal Investigator: Use of essential oils for the treatment of extensively drug resistant tuberculosis. \$39,697. 12/1/2007-11/30/2008. GCET-Korea subcontract.

Co-Investigator. Small molecule inhibitors of pantothenate synthetase against M. tuberculosis. \$104,749. 6/16/2006-5/31/2008. NIH/NIAID R21.

Co-Investigator. Purification and identification of natural products from Scottish plants and endophytes – a potential source of antimycobacterial agents. \$35,596. 10/1/2005 – 9/30/2008. University of Strathclyde.

Principal Investigator. Lead identification of 1,4 benzoxazines as anti-tuberculosis agents. \$334,837. 9/20/2006-8/30/2009. NIH/NIAID R21.

Principal Investigator: In vitro assay standardization. \$312,936. 10/1/2007-9/30/2009. Bill and Melinda Gates Foundation via Colorado State University subcontract.

Principal Investigator: M.tb Susceptibility Testing For InterMed Compounds. \$20,000 03/01/2008 – 02/28/2009. InterMed Discovery GmbH

Principal Investigator: Energy metabolism inhibitors. \$165,170. 4/1/08 – 3/31/2009. Global Alliance for TB Drug Development.

Principal Investigator: Mycobacterium Tuberculosis Susceptibility Testing For Pfizer Compounds. \$66,524, 06/10/2005 – 04/19/2010. Pfizer

Co-investigator: Testing of compounds in the low oxygen recovery assay (LORA) to measure activity against non-replicating M. tuberculosis. \$129,217. 9/26/09-8/31/2010. Southern Research Institute subcontract (NIH).

Co-investigator: The biological function of essential genes important for latency in M. tuberculosis. \$75,200. 7/1/2008-6/30/2010. American Lung Association.

Principal Investigator: In vitro assay standardization. \$99,940. 10/1/2009-9/30/2010 (1 yr. funded extension) Bill and Melinda Gates Foundation via Colorado State University subcontract.

Principal Investigator: Phenotypic screening based lead identification for tuberculosis. (Confidential) \$2,307,662. 10/1/2009–12/30/2010, Global Alliance for TB Drug Development.

Co-investigator: New tuberculosis antibiotics from filamentous fungi. \$19,492. 2/01/09-1/31/10. Mycosynthetix (NIH SBIR).

Principal Investigator: Virulence and latency regulation in *M. tuberculosis*. \$100,000. 6/1/2009-5/31/2011. Chicago Biomedical Consortium.

Principal Investigator: Searching the Earth: Discovery of novel anti-tuberculosis agents from actinomycetes. \$51,000. 12/1/08-11/30/11. Potts Memorial Foundation.

Co-Investigator: Anti-TB bioassays for mushroom metabolites. \$80,000. 4/1/10- 3/31/11. NIH SBIR via LifePharms subcontract.

Co-Investigator: Testing of compounds in the low oxygen recovery assay (LORA) to measure activity against non-replicating *M. tuberculosis*. \$337,853. 9/26/09-8/31/11. NIH via Southern Research Institute.

Co-investigator: Small molecule inhibitors of Malate Synthase against *M. tuberculosis*. \$157,342. 7/1/2009-6/30/2011. NIH.

Co-Investigator: Partnership of development of therapeutics and diagnostics for drug-resistant bacteria and eukaryotic parasites. \$31,000. 10/1/10-8/31/11. NIH via SRI International subcontract.

Principal Investigator : Novel indigoids as next generation anti-tuberculosis agents. \$20,000. 6/01/11–5/31/12 Potts Memorial Foundation.

Co-Investigator: Novel indigoid anti-tuberculosis agents. \$438,365. 2/15/2012- 8/31/2014. NIAID, NIH

Principal Investigator: In vitro testing of candidate anti-tubercular compounds. (Master Service Agreement) (Confidential) \$499,894. 4/1/2012-3/31/2013; Global Alliance for TB Drug Development.

Principal Investigator: In vitro testing of candidate anti-tubercular compounds. (Master Service Agreement) (Confidential) \$499,945. 4/1/2013-3/31/2014; Global Alliance for TB Drug Development.

Principal Investigator: Anti-TB activity of nitroaromatics, and other anti-tuberculosis compounds (Master Service Agreement). (Confidential), \$636,406. 4/1/2014 - 3/31/2015; Global Alliance for TB Drug Development.

Principal Investigator: In vitro detection of anti-TB liver metabolites in early drug discovery. \$429,649. 2/15/2012-1/31/15. NIAID, NIH

Co-Investigator: Development of a transformative approach to the rapid detection, isolation and identification of anti-tuberculosis natural products. \$260,666. 2/15/2012- 1/31/2015. NIAID,

Co-Investigator: Design, synthesis and studies of novel antituberculosis agents. \$390,728. 6/15/10-5/31/15. NIH via U. Notre Dame subcontract.

Partnering PI: Development of diazaquinomycin class antibiotics for the treatment of drug-resistant TB infections. \$577,300. 7/15/13–7/14/16. DoD US Army Medical Research.

Principal Investigator: Anti-TB activity of nitroaromatics, and other anti-tuberculosis compounds (Master Service Agreement). (Confidential), \$1,012,119. 4/1/2015 - 3/31/2016; Global Alliance for TB Drug Development.

Principal Investigator: Anti-TB activity of nitroaromatics, and other anti-tuberculosis compounds (Master Service Agreement). (Confidential), \$888,481. 4/1/2016 - 3/31/2017; Global Alliance for TB Drug Development.

FEE FOR SERVICE

Calibr: \$71,100

Sanofi: \$157,881

WuXi: \$235,500

Shanghai Sunsail: \$93,800

CURRENT EXTRAMURAL SUPPORT (Funding levels are for my research group)

Principal Investigator: Anti-TB activity of nitroaromatics, and other anti-tuberculosis compounds (Master Service Agreement). (Confidential) \$899,903. 4/1/2017 - 3/31/2018; Global Alliance for TB Drug Development.

Principal Investigator: A novel antibiotic strategy exploiting metabolite self-toxicity. \$100,000. 3/1/2017–2/28/2019. Chicago Biomedical Consortium.

Co-investigator: Novel Structure-Based Rifamycins for Drug-Resistant TB and HIV Co-Infection \$206,745. 8/01/2015–1/31/2020. NIAID, NIH – Univ of Michigan

Co- Investigator: Design, Syntheses and Studies of Novel Antituberculosis Agents \$104,399 9/30/2016–8/31/2021. NIAID, NIH - University of Notre Dame

Co-Investigator: Enhancing basic and translational TB research in northern Vietnam. \$52,396. 07/01/17 – 06/30/22. D43 NIH

Co-Investigator: A New Paradigm for the Creation and Investigation of microbial libraries for drug discovery. \$26,653. 7/1/2018-6/30/2019. NIH.

PENDING EXTRAMURAL SUPPORT

Principal Investigator for Core B (\$3,793,000) and Project 1 (\$4,835,000): Modulation of protein production and degradation as an integrated approach to rapid sterilization of drug sensitive and resistant *M. tuberculosis*. (Overall center PI, Nader Fatouhi, Global Alliance for TB Drug Development; total budget \$30,359,000). Center for Excellence in Translational Research, NIH. 3/1/2019-2/29/2024.

JOURNAL REVIEWS

Nature Communications
Nature Medicine Chemistry
and Biology PLOS One
Future Microbiology
Expert Opinion on Therapeutic Targets
Antimicrobial Agents and Chemotherapy
Journal of Antimicrobial Chemotherapy
Journal of Antibiotics
International Journal of Antimicrobial Agents
Tuberculosis
International Journal of Tuberculosis and Lung Disease
International Journal of Leprosy
Leprosy Review
Journal of Pharmacological and Toxicological Methods
British Journal of Pharmacology
Journal of Medicinal Chemistry ACS
Medicinal Chemistry Letters
European Journal of Medicinal Chemistry
Current Medicinal Chemistry
Bioorganic and Medicinal Chemistry Letters
Journal of Natural Products
Journal of Ethnopharmacology
Phytomedicine
BMC Complementary and Alternative Medicine Peer
J
Acta Manilana
Case Studies in Infectious Disease (Book)
International Textbook of Leprosy (Book)

EDITORIAL BOARDS

Tuberculosis Research and Treatment
Medicinal Chemistry
Philippine Journal of Science Acta
Manilana

GRANT REVIEWS

NIH, NIAID
Department of Defense
Innovative Medicines Institute, European Union
Medical Research Council, UK
Thailand Research Fund Estonian
Research Council
United Arab Emirates
The Petroleum Research Fund

DEPARTMENTAL COMMITTEES (Medicinal Chemistry and Pharmacognosy)

Chair, Faculty Search Committee
Chair, Promotion and Tenure Chair,
Space Committee
Dept. Advisory Committee

COLLEGE COMMITTEES (College of Pharmacy)

Executive Committee
Chair, Department Head Search Committee
Strategic planning
Research advisory
Space Utilization sub-committee
Academic standing

UNIVERSITY COMMITTEE (University of Illinois at Chicago)

Council for Excellence in Teaching and Learning (CETL)

COMMUNITY/NATIONAL/INTERNATIONAL SERVICE

Stop TB, Working Group on New Drugs
Judge, National Siemen's Scholarship Competition in Math, Science and Technology
Science Chicago Tour
Speaker, Chicago Area Schweitzer Fellowship program
Lecture, Cristo Rey High School

MEDIA

National Public Radio, Science Friday
Chicago Tonight, WTTW

PhD STUDENTS

Major advisor: 10
Dissertation Committee member (only): 31

POSTDOCS: 18

FACULTY MENTORED (tenure-track, visiting and research faculty): 7

LECTURED in PharmD COURSES:

Principles of Drug Action and Therapeutics VI
Fundamentals of Drug Action III

LECTURED in GRADUATE COURSES:

Drug Discovery, Design and Development
Principles of Medicinal Chemistry Research
techniques in Pharmacognosy Laboratory
techniques in Pharmacognosy Advanced
Pharmacognosy