high throughput screening

	NCT Number	Title	Authors	Description	Identifier	Dates
1	pubmed:36098531	A Novel Approach To Identify Inhibitors of Iron Acquisition Systems of Pseudomonas aeruginosa	Mamie Kannon N Miranda Nebane Pedro Ruiz Sara McKellip Paige N Vinson Avishek Mitra	Pseudomonas aeruginosa is an opportunistic pathogen that has been declared by the World Health Organization as a "priority 1 critical pathogen" needing immediate new strategies for chemotherapy. During infection, P. aeruginosa uses redundant mechanisms to acquire ferric, heme (Hm), or ferrous iron from the host to survive and colonize. Significant efforts have been undertaken to develop siderophore blockers to inhibit ferric iron acquisition by P. aeruginosa, but there is a lack of inhibitors...	pmid:36098531 doi:10.1128/spectrum.02437-22	Tue, 13 Sep 2022 06:00:00 -0400
2	pubmed:36098580	Genetic and Chemical Screening Reveals Targets and Compounds to Potentiate Gram-Positive Antibiotics against Gram-Negative Bacteria	Kristina Klobucar Emily Jardine Maya A Farha Marc R MacKinnon Meghan Fragis Brenda Nkonge Timsy Bhando Louis Borrillo Caressa N Tsai Jarrod W Johnson Brian K Coombes Jakob Magolan Eric D Brown	Gram-negative bacteria are intrinsically resistant to a plethora of antibiotics that effectively inhibit the growth of Gram-positive bacteria. The intrinsic resistance of Gram-negative bacteria to classes of antibiotics, including rifamycins, aminocoumarins, macrolides, glycopeptides, and oxazolidinones, has largely been attributed to their lack of accumulation within cells due to poor permeability across the outer membrane, susceptibility to efflux pumps, or a combination of these factors. Due...	pmid:36098580 doi:10.1021/acsinfecdis.2c00357	Tue, 13 Sep 2022 06:00:00 -0400
3	pubmed:36099057	Flexible and High-Throughput Photothermal Biosensors for Rapid Screening of Acute Myocardial Infarction Using Thermochromic Paper-Based Image Analysis	Zhichao Yu Hexiang Gong Fangqin Xue Yongyi Zeng Xiaolong Liu Dianping Tang	Herein, we developed a flexible, low-cost thermosensitive fiber paper for the visual display in photothermal biosensing systems for early acute myocardial infarction. The thermal signal visualization device was encapsulated with rewritable thermal fibers, which exhibited excellent stability and reversibility. The mechanism of color change in thermal paper was based on a temperature-driven reversible transformation of the structure of the dye molecule (crystalline violet lactone, CVL). It...	pmid:36099057 doi:10.1021/acs.analchem.2c02957	Tue, 13 Sep 2022 06:00:00 -0400
4	pubmed:36099417	A toolkit for the identification of NEAT1_2/paraspeckle modulators	Haiyan An Karen T Elvers Jason A Gillespie Kimberley Jones John R Atack Olivera Grubisha Tatyana A Shelkovnikova	Paraspeckles are ribonucleoprotein granules assembled by NEAT1_2 lncRNA, an isoform of Nuclear Paraspeckle Assembly Transcript 1 (NEAT1). Dysregulation of NEAT1_2/paraspeckles has been linked to multiple human diseases making them an attractive drug target. However currently NEAT1_2/paraspeckle-focused translational research and drug discovery are hindered by a limited toolkit. To fill this gap, we developed and validated a set of tools for the identification of NEAT1_2 binders and modulators...	pmid:36099417 doi:10.1093/nar/gkac771	Tue, 13 Sep 2022 06:00:00 -0400

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5	pubmed:36099719	Discovery of BET specific bromodomain inhibitors with a novel scaffold	Navin Pandit Miyoun Yoo Tae Hyun Park Jiin Kim Seul Mi Kim Kyu Myung Lee Yeongrin Kim Seoung Min Bong Byung Il Lee Kwan-Young Jung Chi Hoon Park	Bromodomain and extra-terminal domain (BET) proteins have been considered as potent candidates for anti-cancer drug development. As epigenetic readers, they modulate gene expression by recognizing acetylated lysine residues on histones. Therefore, the pharmacological inhibition of BET proteins has been extensively studied. Herein, we report the novel chemical scaffold of N-(pyridin-2-yl)-1H-benzo[d][1,2,3]triazol-5-amine as BET inhibitors using high-throughput screening assay. Through the...	pmid:36099719 doi:10.1016/j.bmc.2022.116967	Tue, 13 Sep 2022 06:00:00 -0400
6	pubmed:36099923	Human gut microbiota stimulate defined innate immune responses that vary from phylum to strain	Matthew P Spindler Sophia S Siu Ilaria Mogno Zhihua Li Chao Yang Saurabh Mehandru Graham J Britton Jeremiah J Faith	The potential of commensal bacteria to modulate host immunity remains largely uncharacterized, largely due to the vast number of strains that comprise the human gut microbiota. We have developed a screening platform to measure the innate immune responses of myeloid cells to 277 bacterial strains isolated from the gut microbiota of healthy individuals and those with inflammatory bowel diseases. The innate immune responses to gut-derived bacteria are as strong as those toward pathogenic bacteria,...	pmid:36099923 doi:10.1016/j.chom.2022.08.009	Tue, 13 Sep 2022 06:00:00 -0400
7	pubmed:36100046	Recent advances for using human induced-pluripotent stem cells as pain-in-a-dish models of neuropathic pain	Julie I R Labau Mirna Andelic Catharina G Faber Stephen G Waxman Giuseppe Lauria Sulayman Dib-Hajj	Neuropathic pain is amongst the most common non-communicable disorders and the poor effectiveness of current treatment is an unmet need. Although pain is a universal experience, there are significant inter-individual phenotypic differences. Developing models that can accurately recapitulate the clinical pain features is crucial to better understand underlying pathophysiological mechanisms and find innovative treatments. Current data from heterologous expression systems that investigate...	pmid:36100046 doi:10.1016/j.expneurol.2022.114223	Tue, 13 Sep 2022 06:00:00 -0400
8	pubmed:36101934	X-ray Screening of an Electrophilic Fragment Library and Application toward the Development of a Novel ERK 1/2 Covalent Inhibitor	Jeffrey D St Denis Gianni Chessari Anne Cleasby Benjamin D Cons Suzanna Cowan Samuel E Dalton Charlotte East Christopher W Murray Marc O'Reilly Torren Peakman Magdalini Rapti Jessie L Stow	Fragment-based drug discovery (FBDD) has become an established method for the identification of efficient starting points for drug discovery programs. In recent years, electrophilic fragment screening has garnered increased attention from both academia and industry to identify novel covalent hits for tool compound or drug development against challenging drug targets. Herein, we describe the design and characterization of an acrylamide-focused electrophilic fragment library and screening campaign...	pmid:36101934 doi:10.1021/acs.jmedchem.2c01044	Wed, 14 Sep 2022 06:00:00 -0400

	NCT Number	Title	Authors	Description	Identifier	Dates
9	pubmed:36102319	Clinical implications of the oralgut microbiome axis and its association with colorectal cancer (Review)	Fang Liu Dan Su Heng Zhang Hong-Cheng Lin Qian Zhou Bo Cao Dong-Lin Ren	Colorectal cancer (CRC) is a common form of carcinoma with an increasing global incidence and fatality rates. The current strategies for reducing the incidence and mortality rates of CRC include early screening, prevention, diagnosis and treatment. Additionally, modern highthroughput sequencing technologies in combination with the continuous indepth study of the microbiome have highlighted the roles of microorganisms in the development of CRC. In particular, studies have demonstrated that...	pmid:36102319 doi:10.3892/or.2022.8407	Wed, 14 Sep 2022 06:00:00 -0400
10	pubmed:36103544	Identification of immunomodulatory drugs that inhibit multiple inflammasomes and impair SARS-CoV-2 infection	Letícia de Almeida Alexandre L N da Silva Tamara S Rodrigues Samuel Oliveira Adriene Y Ishimoto Amanda A Seribelli Amanda Becerra Warrison A Andrade Marco A Ataide Camila C S Caetano Keyla S G de Sá Natália Pelisson Ronaldo B Martins Juliano de Paula Souza Eurico Arruda Sabrina S Batah Ricardo Castro Fabiani G Frantz Fernando Q Cunha Thiago M Cunha Alexandre T Fabro Larissa D Cunha Paulo Louzada-Junior Rene D R de Oliveira Dario S Zamboni	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) induces mild or asymptomatic COVID-19 in most cases, but some patients develop an excessive inflammatory process that can be fatal. As the NLRP3 inflammasome and additional inflammasomes are implicated in disease aggravation, drug repositioning to target inflammasomes emerges as a strategy to treat COVID-19. Here, we performed a high-throughput screening using a 2560 small-molecule compound library and identified FDA-approved drugs...	pmid:36103544 doi:10.1126/sciadv.abo5400	Wed, 14 Sep 2022 06:00:00 -0400