# David B Olsen

## List of Publications by Citations

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|---|---|---|---|
| 102 papers | 4,505 citations | 32 h-index | 64 g-index |
| 113 ext. papers | 4,929 ext. citations | 5.1 avg, IF | 4.36 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 102 | Inhibition of hepatitis C virus RNA replication by 2∀modified nucleoside analogs. *Journal of Biological Chemistry*, **2003**, 278, 11979-84 | 5.4 | 285 |
| 101 | Characterization of resistance to non-obligate chain-terminating ribonucleoside analogs that inhibit hepatitis C virus replication in vitro. *Journal of Biological Chemistry*, **2003**, 278, 49164-70 | 5.4 | 284 |
| 100 | MK-5172, a selective inhibitor of hepatitis C virus NS3/4a protease with broad activity across genotypes and resistant variants. *Antimicrobial Agents and Chemotherapy*, **2012**, 56, 4161-7 | 5.9 | 224 |
| 99 | A 7-deaza-adenosine analog is a potent and selective inhibitor of hepatitis C virus replication with excellent pharmacokinetic properties. *Antimicrobial Agents and Chemotherapy*, **2004**, 48, 3944-53 | 5.9 | 200 |
| 98 | Structure-activity relationship of purine ribonucleosides for inhibition of hepatitis C virus RNA-dependent RNA polymerase. *Journal of Medicinal Chemistry*, **2004**, 47, 2283-95 | 8.3 | 193 |
| 97 | Discovery of MK-8742: an HCV NS5A inhibitor with broad genotype activity. *ChemMedChem*, **2013**, 8, 1930-40 | 3.7 | 174 |
| 96 | Structure-activity relationship of heterobase-modified 2∀C-methyl ribonucleosides as inhibitors of hepatitis C virus RNA replication. *Journal of Medicinal Chemistry*, **2004**, 47, 5284-97 | 8.3 | 174 |
| 95 | Discovery of MK-5172, a Macrocyclic Hepatitis C Virus NS3/4a Protease Inhibitor. *ACS Medicinal Chemistry Letters*, **2012**, 3, 332-6 | 4.3 | 163 |
| 94 | Discovery of vaniprevir (MK-7009), a macrocyclic hepatitis C virus NS3/4a protease inhibitor. *Journal of Medicinal Chemistry*, **2010**, 53, 2443-63 | 8.3 | 145 |
| 93 | MK-7009, a potent and selective inhibitor of hepatitis C virus NS3/4A protease. *Antimicrobial Agents and Chemotherapy*, **2010**, 54, 305-11 | 5.9 | 131 |
| 92 | Inhibition of HIV-1 ribonuclease H by a novel diketo acid, 4-[5-(benzoylamino)thien-2-yl]-2,4-dioxobutanoic acid. *Journal of Biological Chemistry*, **2003**, 278, 2777-80 | 5.4 | 130 |
| 91 | Molecular modeling based approach to potent P2-P4 macrocyclic inhibitors of hepatitis C NS3/4A protease. *Journal of the American Chemical Society*, **2008**, 130, 4607-9 | 16.4 | 128 |
| 90 | Human monoclonal antibody HCV1 effectively prevents and treats HCV infection in chimpanzees. *PLoS Pathogens*, **2012**, 8, e1002895 | 7.6 | 118 |
| 89 | Characterization of the inhibition of hepatitis C virus RNA replication by nonnucleosides. *Journal of Virology*, **2004**, 78, 938-46 | 6.6 | 118 |
| 88 | Replication fitness and NS5B drug sensitivity of diverse hepatitis C virus isolates characterized by using a transient replication assay. *Antimicrobial Agents and Chemotherapy*, **2005**, 49, 2059-69 | 5.9 | 114 |
| 87 | PD-1 blockade in rhesus macaques: impact on chronic infection and prophylactic vaccination. *Journal of Immunology*, **2009**, 182, 980-7 | 5.3 | 101 |
| 86 | Study of a hammerhead ribozyme containing 2∀modified adenosine residues. *Biochemistry*, **1991**, 30, 9735-41 | 3.2 | 100 |

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| 85 | Robust antiviral efficacy upon administration of a nucleoside analog to hepatitis C virus-infected chimpanzees. *Antimicrobial Agents and Chemotherapy*, **2009**, 53, 926-34 | 5.9 | 80 |
| 84 | SARS-CoV-2 tropism, entry, replication, and propagation: Considerations for drug discovery and development. *PLoS Pathogens*, **2021**, 17, e1009225 | 7.6 | 74 |
| 83 | Non-active site changes elicit broad-based cross-resistance of the HIV-1 protease to inhibitors. *Journal of Biological Chemistry*, **1999**, 274, 23699-701 | 5.4 | 59 |
| 82 | Sensitivity of HIV-1 reverse transcriptase and its mutants to inhibition by azidothymidine triphosphate. *Biochemistry*, **1994**, 33, 2113-20 | 3.2 | 59 |
| 81 | Oxabicyclooctane-linked novel bacterial topoisomerase inhibitors as broad spectrum antibacterial agents. *ACS Medicinal Chemistry Letters*, **2014**, 5, 609-14 | 4.3 | 53 |
| 80 | Incomplete primer extension during in vitro DNA amplification catalyzed by Taq polymerase; exploitation for DNA sequencing. *Nucleic Acids Research*, **1989**, 17, 9613-20 | 20.1 | 48 |
| 79 | Phosphoramidate prodrugs of 2∀C-methylcytidine for therapy of hepatitis C virus infection. *Journal of Medicinal Chemistry*, **2009**, 52, 5394-407 | 8.3 | 45 |
| 78 | Identification of MK-944a: a second clinical candidate from the hydroxylaminepentanamide isostere series of HIV protease inhibitors. *Journal of Medicinal Chemistry*, **2000**, 43, 3386-99 | 8.3 | 45 |
| 77 | Design, synthesis, and biological evaluation of monopyrrolinone-based HIV-1 protease inhibitors. *Journal of Medicinal Chemistry*, **2003**, 46, 1831-44 | 8.3 | 44 |
| 76 | Investigation of the Bacillus cereus phosphonoacetaldehyde hydrolase. Evidence for a Schiff base mechanism and sequence analysis of an active-site peptide containing the catalytic lysine residue. *Biochemistry*, **1988**, 27, 2229-34 | 3.2 | 44 |
| 75 | Sustained viral response in a hepatitis C virus-infected chimpanzee via a combination of direct-acting antiviral agents. *Antimicrobial Agents and Chemotherapy*, **2011**, 55, 937-9 | 5.9 | 43 |
| 74 | Inhibitory effect of 2∀substituted nucleosides on hepatitis C virus replication correlates with metabolic properties in replicon cells. *Antimicrobial Agents and Chemotherapy*, **2005**, 49, 2050-8 | 5.9 | 41 |
| 73 | Identification and biological evaluation of a series of 1H-benzo[de]isoquinoline-1,3(2H)-diones as hepatitis C virus NS5B polymerase inhibitors. *Journal of Medicinal Chemistry*, **2009**, 52, 5217-27 | 8.3 | 38 |
| 72 | Liver-targeted prodrugs of 2∀C-methyladenosine for therapy of hepatitis C virus infection. *Journal of Medicinal Chemistry*, **2007**, 50, 3891-6 | 8.3 | 36 |
| 71 | Synthesis and evaluation of S-acyl-2-thioethyl esters of modified nucleoside 5∀monophosphates as inhibitors of hepatitis C virus RNA replication. *Journal of Medicinal Chemistry*, **2005**, 48, 1199-210 | 8.3 | 33 |
| 70 | A time-resolved, internally quenched fluorescence assay to characterize inhibition of hepatitis C virus nonstructural protein 3-4A protease at low enzyme concentrations. *Analytical Biochemistry*, **2008**, 373, 1-8 | 3.1 | 31 |
| 69 | Dual Plasmepsin-Targeting Antimalarial Agents Disrupt Multiple Stages of the Malaria Parasite Life Cycle. *Cell Host and Microbe*, **2020**, 27, 642-658.e12 | 23.4 | 30 |
| 68 | X-ray crystallographic and site-directed mutagenesis analysis of the mechanism of Schiff-base formation in phosphonoacetaldehyde hydrolase catalysis. *Journal of Biological Chemistry*, **2004**, 279, 9353-61 | 5.4 | 30 |

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| 67 | Hinnuliquinone, a C2-symmetric dimeric non-peptide fungal metabolite inhibitor of HIV-1 protease. *Biochemical and Biophysical Research Communications*, **2004**, 324, 108-13 | 3.4 | 30 |
| 66 | Bismacrocyclic inhibitors of hepatitis C NS3/4a protease. *Angewandte Chemie - International Edition*, **2008**, 47, 9104-7 | 16.4 | 29 |
| 65 | Indinavir analogues with blocked metabolism sites as HIV protease inhibitors with improved pharmacological profiles and high potency against PI-resistant viral strains. *Bioorganic and Medicinal Chemistry Letters*, **2002**, 12, 2419-22 | 2.9 | 29 |
| 64 | Discovery of MK-1220: A Macrocyclic Inhibitor of Hepatitis C Virus NS3/4A Protease with Improved Preclinical Plasma Exposure. *ACS Medicinal Chemistry Letters*, **2011**, 2, 207-12 | 4.3 | 28 |
| 63 | Synthesis and HCV inhibitory properties of 9-deaza- and 7,9-dideaza-7-oxa-2∀C-methyladenosine. *Bioorganic and Medicinal Chemistry*, **2007**, 15, 5219-29 | 3.4 | 27 |
| 62 | Investigation of the substrate binding and catalytic groups of the P-C bond cleaving enzyme, phosphonoacetaldehyde hydrolase. *Archives of Biochemistry and Biophysics*, **1992**, 296, 144-51 | 4.1 | 26 |
| 61 | Elucidation of DnaE as the Antibacterial Target of the Natural Product, Nargenicin. *Chemistry and Biology*, **2015**, 22, 1362-73 | | 25 |
| 60 | Gene expression profiling of rat liver reveals a mechanistic basis for ritonavir-induced hyperlipidemia. *Genomics*, **2007**, 90, 464-73 | 4.3 | 23 |
| 59 | An alternate binding site for the P1-P3 group of a class of potent HIV-1 protease inhibitors as a result of concerted structural change in the 80s loop of the protease. *Acta Crystallographica Section D: Biological Crystallography*, **2000**, 56, 381-8 | | 23 |
| 58 | Elucidation of basic mechanistic and kinetic properties of influenza endonuclease using chemically synthesized RNAs. *Journal of Biological Chemistry*, **1996**, 271, 7435-9 | 5.4 | 21 |
| 57 | Tricyclic 1,5-naphthyridinone oxabicyclooctane-linked novel bacterial topoisomerase inhibitors as broad-spectrum antibacterial agents-SAR of left-hand-side moiety (Part-2). *Bioorganic and Medicinal Chemistry Letters*, **2015**, 25, 1831-5 | 2.9 | 20 |
| 56 | Investigation of the inhibitory role of phosphorothioate internucleotidic linkages on the catalytic activity of the restriction endonuclease EcoRV. *Biochemistry*, **1990**, 29, 9546-51 | 3.2 | 20 |
| 55 | Hydroxy tricyclic 1,5-naphthyridinone oxabicyclooctane-linked novel bacterial topoisomerase inhibitors as broad-spectrum antibacterial agents-SAR of RHS moiety (Part-3). *Bioorganic and Medicinal Chemistry Letters*, **2015**, 25, 2473-8 | 2.9 | 19 |
| 54 | P2-quinazolinones and bis-macrocycles as new templates for next-generation hepatitis C virus NS3/4a protease inhibitors: discovery of MK-2748 and MK-6325. *ChemMedChem*, **2015**, 10, 727-35 | 3.7 | 19 |
| 53 | Design, synthesis, and biological evaluation of monopyrrolinone-based HIV-1 protease inhibitors possessing augmented P2∀side chains. *Bioorganic and Medicinal Chemistry Letters*, **2006**, 16, 859-63 | 2.9 | 19 |
| 52 | Combinatorial diversification of indinavir: in vivo mixture dosing of an HIV protease inhibitor library. *Bioorganic and Medicinal Chemistry Letters*, **2000**, 10, 1527-30 | 2.9 | 19 |
| 51 | Linking High-Throughput Screens to Identify MoAs and Novel Inhibitors of Mycobacterium tuberculosis Dihydrofolate Reductase. *ACS Chemical Biology*, **2017**, 12, 2448-2456 | 4.9 | 18 |
| 50 | Antiviral efficacy upon administration of a HepDirect prodrug of 2∀C-methylcytidine to hepatitis C virus-infected chimpanzees. *Antimicrobial Agents and Chemotherapy*, **2011**, 55, 3854-60 | 5.9 | 18 |

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| 49 | Generation of SARS-CoV-2 reporter replicon for high-throughput antiviral screening and testing. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118, | 11.5 | 18 |
| 48 | Discovery and Structure-Activity-Relationship Study of N-Alkyl-5-hydroxypyrimidinone Carboxamides as Novel Antitubercular Agents Targeting Decaprenylphosphoryl-Ed-ribose 2¥Oxidase. *Journal of Medicinal Chemistry*, **2018**, 61, 9952-9965 | 8.3 | 18 |
| 47 | P1¥oxadiazole protease inhibitors with excellent activity against native and protease inhibitor-resistant HIV-1. *Bioorganic and Medicinal Chemistry Letters*, **2004**, 14, 4651-4 | 2.9 | 17 |
| 46 | Design and synthesis of highly potent HIV protease inhibitors with activity against resistant virus. *Bioorganic and Medicinal Chemistry Letters*, **2003**, 13, 1821-4 | 2.9 | 17 |
| 45 | Preparation and use of synthetic oligoribonucleotides as tools for study of viral polymerases. *Methods in Enzymology*, **1996**, 275, 365-82 | 1.7 | 17 |
| 44 | Kibdelomycin is a potent and selective agent against toxigenic Clostridium difficile. *Antimicrobial Agents and Chemotherapy*, **2014**, 58, 2387-92 | 5.9 | 16 |
| 43 | Inhibition of restriction endonuclease hydrolysis by phosphorothioate-containing DNA. *Nucleic Acids Research*, **1989**, 17, 9495 | 20.1 | 16 |
| 42 | Structure activity relationship of substituted 1,5-naphthyridine analogs of oxabicyclooctane-linked novel bacterial topoisomerase inhibitors as broad-spectrum antibacterial agents (Part-4). *Bioorganic and Medicinal Chemistry Letters*, **2015**, 25, 2409-15 | 2.9 | 15 |
| 41 | A transient cell-based phenotype assay for hepatitis C NS3/4A protease: application to potency determinations of a novel macrocyclic inhibitor against diverse protease sequences isolated from plasma infected with HCV. *Journal of Virological Methods*, **2008**, 151, 301-307 | 2.6 | 15 |
| 40 | A genotype 2b NS5B polymerase with novel substitutions supports replication of a chimeric HCV 1b:2b replicon containing a genotype 1b NS3-5A background. *Antiviral Research*, **2006**, 69, 24-30 | 10.8 | 15 |
| 39 | Structure activity relationship of C-2 ether substituted 1,5-naphthyridine analogs of oxabicyclooctane-linked novel bacterial topoisomerase inhibitors as broad-spectrum antibacterial agents (Part-5). *Bioorganic and Medicinal Chemistry Letters*, **2015**, 25, 3630-5 | 2.9 | 14 |
| 38 | In Vitro and In Vivo Characterization of the Novel Oxabicyclooctane-Linked Bacterial Topoisomerase Inhibitor AM-8722, a Selective, Potent Inhibitor of Bacterial DNA Gyrase. *Antimicrobial Agents and Chemotherapy*, **2016**, 60, 4830-9 | 5.9 | 14 |
| 37 | Structure activity relationship of pyridoxazinone substituted RHS analogs of oxabicyclooctane-linked 1,5-naphthyridinyl novel bacterial topoisomerase inhibitors as broad-spectrum antibacterial agents (Part-6). *Bioorganic and Medicinal Chemistry Letters*, **2015**, 25, 3636-43 | 2.9 | 13 |
| 36 | Affinity Selection-Mass Spectrometry Identifies a Novel Antibacterial RNA Polymerase Inhibitor. *ACS Chemical Biology*, **2017**, 12, 1346-1352 | 4.9 | 12 |
| 35 | Design, synthesis, structure-function relationship, bioconversion, and pharmacokinetic evaluation of ertapenem prodrugs. *Journal of Medicinal Chemistry*, **2014**, 57, 8421-44 | 8.3 | 12 |
| 34 | Synthesis of 2?-EC-methyl-neplanocin derivatives as anti-HCV agents. *Tetrahedron Letters*, **2008**, 49, 4149-4152 | 2 | 12 |
| 33 | Novel HIV-1 protease inhibitors active against multiple PI-resistant viral strains: coadministration with indinavir. *Bioorganic and Medicinal Chemistry Letters*, **2003**, 13, 4027-30 | 2.9 | 12 |
| 32 | Synthesis and evaluation of optically pure dioxolanes as inhibitors of hepatitis C virus RNA replication. *Bioorganic and Medicinal Chemistry Letters*, **2003**, 13, 4455-8 | 2.9 | 12 |

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| 31 | The design, synthesis and evaluation of novel HIV-1 protease inhibitors with high potency against PI-resistant viral strains. *Bioorganic and Medicinal Chemistry Letters*, **2003**, 13, 2573-6 | 2.9 | 12 |
| 30 | HIV protease inhibitors with picomolar potency against PI-Resistant HIV-1 by extension of the P3 substituent. *Bioorganic and Medicinal Chemistry Letters*, **2003**, 13, 2569-72 | 2.9 | 12 |
| 29 | Syntheses of 4?-spirocyclic phosphono-nucleosides as potential inhibitors of hepatitis C virus NS5B polymerase. *Tetrahedron Letters*, **2014**, 55, 4407-4409 | 2 | 11 |
| 28 | A combinatorial library of indinavir analogues and its in vitro and in vivo studies. *Bioorganic and Medicinal Chemistry Letters*, **2002**, 12, 529-32 | 2.9 | 11 |
| 27 | Synthesis and activity of novel HIV protease inhibitors with improved potency against multiple PI-resistant viral strains. *Bioorganic and Medicinal Chemistry Letters*, **2002**, 12, 2423-6 | 2.9 | 11 |
| 26 | Site-directed mutagenesis of single-stranded and double-stranded DNA by phosphorothioate approach. *Methods in Enzymology*, **1993**, 217, 189-217 | 1.7 | 11 |
| 25 | Development of a New Structural Class of Broadly Acting HCV Non-Nucleoside Inhibitors Leading to the Discovery of MK-8876. *ChemMedChem*, **2017**, 12, 1436-1448 | 3.7 | 10 |
| 24 | Synthesis and biological evaluation of 5R- and 5S-methyl substituted D- and L-configuration 1,3-dioxolane nucleoside analogs. *Bioorganic and Medicinal Chemistry*, **2004**, 12, 6237-47 | 3.4 | 10 |
| 23 | Expression and purification of retroviral HIV-1 reverse transcriptase. *Methods in Enzymology*, **1996**, 275, 122-33 | 1.7 | 9 |
| 22 | Combinatorial library of indinavir analogues: replacement for the aminoindanol at P2V *Bioorganic and Medicinal Chemistry Letters*, **2002**, 12, 2855-8 | 2.9 | 9 |
| 21 | HIV-1 protease inhibitors with picomolar potency against PI-resistant HIV-1 by modification of the P1\substituent. *Bioorganic and Medicinal Chemistry Letters*, **2003**, 13, 3323-6 | 2.9 | 9 |
| 20 | C1C2-linker substituted 1,5-naphthyridine analogues of oxabicyclooctane-linked NBTIs as broad-spectrum antibacterial agents (part 7). *MedChemComm*, **2015**, 6, 1773-1780 | 5 | 8 |
| 19 | Development of macrocyclic inhibitors of HCV NS3/4A protease with cyclic constrained P2-P4 linkers. *Bioorganic and Medicinal Chemistry Letters*, **2012**, 22, 7207-13 | 2.9 | 8 |
| 18 | Synthesis of novel HIV protease inhibitors (PI) with activity against PI-resistant virus. *Bioorganic and Medicinal Chemistry Letters*, **2007**, 17, 5432-6 | 2.9 | 8 |
| 17 | Orally bioavailable highly potent HIV protease inhibitors against PI-resistant virus. *Bioorganic and Medicinal Chemistry Letters*, **2005**, 15, 5311-4 | 2.9 | 8 |
| 16 | Synthesis of amino heterocycle aspartyl protease inhibitors. *Organic and Biomolecular Chemistry*, **2016**, 14, 4970-85 | 3.9 | 8 |
| 15 | Structure-Guided Drug Design of 6-Substituted Adenosine Analogues as Potent Inhibitors of Mycobacterium tuberculosis Adenosine Kinase. *Journal of Medicinal Chemistry*, **2019**, 62, 4483-4499 | 8.3 | 7 |
| 14 | Design, synthesis, and evaluation of prodrugs of ertapenem. *ACS Medicinal Chemistry Letters*, **2013**, 4, 715-9 | 4.3 | 7 |

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| 13 | Development of potent macrocyclic inhibitors of genotype 3a HCV NS3/4A protease. *Bioorganic and Medicinal Chemistry Letters*, **2012**, 22, 7201-6 | 2.9 | 6 |
| 12 | Thiazomycin, nocathiacin and analogs show strong activity against clinical strains of drug-resistant Mycobacterium tuberculosis. *Journal of Antibiotics*, **2017**, 70, 671-674 | 3.7 | 5 |
| 11 | Syntheses of nucleosides with 2?-spirolactam and 2?-spiropyrrolidine moieties as potential inhibitors of hepatitis C virus NS5B polymerase. *Tetrahedron Letters*, **2014**, 55, 3813-3816 | 2 | 5 |
| 10 | Syntheses of 1?,2?-cyclopentyl nucleosides as potential antiviral agents. *Tetrahedron Letters*, **2014**, 55, 5092-5095 | 2 | 4 |
| 9 | Syntheses of nucleosides with a 1?,2?-□lactam moiety as potential inhibitors of hepatitis C virus NS5B polymerase. *Tetrahedron Letters*, **2014**, 55, 5576-5579 | 2 | 4 |
| 8 | Assay for influenza virus endonuclease using DNA polymerase extension of a specific cleavage product. *Analytical Biochemistry*, **1995**, 231, 309-14 | 3.1 | 4 |
| 7 | Direct sequencing of polymerase chain reaction products. *Methods in Enzymology*, **1993**, 218, 79-92 | 1.7 | 3 |
| 6 | 2V-Modified Guanosine Analogs for the Treatment of HCV. *Nucleosides, Nucleotides and Nucleic Acids*, **2016**, 35, 277-94 | 1.4 | 3 |
| 5 | Identification of □Lactams Active against by a Consortium of Pharmaceutical Companies and Academic Institutions.. *ACS Infectious Diseases*, **2022**, | 5.5 | 2 |
| 4 | Identification of cyclic hexapeptides natural products with inhibitory potency against Mycobacterium tuberculosis. *BMC Research Notes*, **2018**, 11, 416 | 2.3 | 1 |
| 3 | MK-5172, a Selective Inhibitor of Hepatitis C Virus NS3/4a Protease with Broad Activity across Genotypes and Resistant Variants. *Antimicrobial Agents and Chemotherapy*, **2014**, 58, 4995-4995 | 5.9 | 1 |
| 2 | Structure activity relationship of N-1 substituted 1,5-naphthyrid-2-one analogs of oxabicyclooctane-linked novel bacterial topoisomerase inhibitors as broad-spectrum antibacterial agents (Part-9). *Bioorganic and Medicinal Chemistry Letters*, **2022**, 128808 | 2.9 | 1 |
| 1 | Overview: High Efficiency Oligonucleotide-Directed Mutagenesis of Double-stranded DNA Vectors. *Current Opinion in Therapeutic Patents*, **1992**, 2, 1023-1029 | | |