**Sean Fanning
Publications**

Abderrahman B, Maximov PY, Curpan RF, **Fanning SW**, Hanspal JS, Fan P, Foulds CE, Chen Y, Malovannaya A, …,Jordan VC. **Rapid Induction of the Unfolded Protein Response and Apoptosis by** **Estrogen Mimic TTC-352 for the Treatment of Endocrine-Resistant Breast Cancer**. Mol Cancer Ther. 2021 Jan;20(1):11-25. doi: 10.1158/1535-7163.MCT-20-0563. Epub 2020 Nov 11. PMID: 33177154; PMCID: PMC7790886.

Maximov PY, Abderrahman B, Hawsawi YM, Chen Y, Foulds CE, Jain A, Malovannaya A, Fan P, …, **Fanning SW**, …, Jordan VC. **The Structure-Function Relationship of Angular** **Estrogens and Estrogen Receptor Alpha to Initiate Estrogen-Induced Apoptosis in** **Breast Cancer Cells**. Mol Pharmacol. 2020 Jul;98(1):24-37. doi: 10.1124/mol.120.119776. Epub 2020 May 3. PMID: 32362585; PMCID: PMC7294906.

Montgomery JE, Donnelly JA, **Fanning SW**, Speltz TE, Shangguan X, Coukos JS, Greene GL, Moellering RE. **Versatile Peptide Macrocyclization with Diels-Alder** **Cycloadditions**. J Am Chem Soc. 2019 Oct 16;141(41):16374-16381. doi: 10.1021/jacs.9b07578. Epub 2019 Sep 26. PMID: 31523967; PMCID: PMC7745206.

**Fanning SW**, Greene GL. **Next-Generation ERα Inhibitors for Endocrine-Resistant ER+ Breast Cancer**. Endocrinology. 2019 Apr 1;160(4):759-769. doi:10.1210/en.2018-01095. PMID: 30753408.

**Fanning SW**, Jeselsohn R, Dharmarajan V, Mayne CG, Karimi M, Buchwalter G, Houtman R, Toy W, Fowler CE, …, Greene GL. **The SERM/SERD bazedoxifene** **disrupts ESR1 helix 12 to overcome acquired hormone resistance in breast cancer** **cells**. Elife. 2018 Nov 29;7:e37161. doi: 10.7554/eLife.37161. PMID: 30489256; PMCID: PMC6335054.

Speltz TE, Mayne CG, **Fanning SW**, Siddiqui Z, Tajkhorshid E, Greene GL, Moore TW. **A "cross-stitched" peptide with improved helicity and proteolytic stability**. Org Biomol Chem. 2018 May 23;16(20):3702-3706. doi: 10.1039/c8ob00790j. PMID: 29725689; PMCID: PMC5993042.

Maximov PY, Abderrahman B, **Fanning SW**, Sengupta S, Fan P, Curpan RF, Rincon DMQ, Greenland JA, Rajan SS, Greene GL, Jordan VC. **Endoxifen, 4-Hydroxytamoxifen and an Estrogenic Derivative Modulate Estrogen Receptor Complex Mediated Apoptosis in Breast Cancer**. Mol Pharmacol. 2018 Aug;94(2):812-822. doi: 10.1124/mol.117.111385. Epub 2018 May 8. PMID: 29739819; PMCID: PMC6022805.

Toy W, Weir H, Razavi P, Lawson M, Goeppert AU, Mazzola AM, Smith A, Wilson J, …, **Fanning S**, …, Chandarlapaty S. **Activating *ESR1* Mutations Differentially Affect the Efficacy of ER Antagonists**. Cancer Discov. 2017 Mar;7(3):277-287. doi: 10.1158/2159-8290.CD-15-1523. Epub 2016 Dec 16. PMID: 27986707; PMCID: PMC5340622.

Speltz TE, **Fanning SW**, Mayne CG, Fowler C, Tajkhorshid E, Greene GL, Moore TW. **Stapled Peptides with γ-Methylated Hydrocarbon Chains for the Estrogen Receptor/Coactivator Interaction**. Angew Chem Int Ed Engl. 2016 Mar 18;55(13):4252-5. doi: 10.1002/anie.201510557. Epub 2016 Mar 1. PMID: 26928945; PMCID: PMC4964982.

**Fanning SW**, Mayne CG, Dharmarajan V, Carlson KE, Martin TA, Novick SJ, Toy W, Green B, Panchamukhi S, …, Greene GL. **Estrogen receptor alpha** **somatic mutations Y537S and D538G confer breast cancer endocrine resistance by** **stabilizing the activating function-2 binding conformation**. Elife. 2016 Feb 2;5:e12792. doi: 10.7554/eLife.12792. PMID: 26836308; PMCID: PMC4821807.

**Fanning SW**, Walter R, Horn JR. **Structural basis of an engineered dual-specific antibody: conformational diversity leads to a hypervariable loop metal-binding site**. Protein Eng Des Sel. 2014 Oct;27(10):391-7. doi:10.1093/protein/gzu033. Epub 2014 Aug 20. PMID: 25143596.

Toy W, Shen Y, Won H, Green B, Sakr RA, Will M, Li Z, Gala K, **Fanning S**, …, Chandarlapaty S. **ESR1 ligand-binding domain mutations in hormone-resistant** **breast cancer**. Nat Genet. 2013 Dec;45(12):1439-45. doi: 10.1038/ng.2822. Epub 2013 Nov 3. PMID: 24185512; PMCID: PMC3903423.

Sztuba-Solińska J, **Fanning SW**, Horn JR, Bujarski JJ. **Mutations in the coat protein-binding cis-acting RNA motifs debilitate RNA recombination of Brome mosaic virus**. Virus Res. 2012 Dec;170(1-2):138-49. doi:10.1016/j.virusres.2012.10.001. Epub 2012 Oct 16. PMID: 23079110; PMCID:PMC7114393.

Murtaugh ML, **Fanning SW**, Sharma TM, Terry AM, Horn JR. **A combinatorial histidine scanning library approach to engineer highly pH-dependent protein switches**. Protein Sci. 2011 Sep;20(9):1619-31. doi: 10.1002/pro.696. Epub 2011 Aug 3. PMID: 21766385; PMCID: PMC3190156.

**Fanning SW**, Horn JR. **An anti-hapten camelid antibody reveals a cryptic binding site with significant energetic contributions from a nonhypervariable loop**. Protein Sci. 2011 Jul;20(7):1196-207. doi: 10.1002/pro.648. Epub 2011 May23. PMID: 21557375; PMCID: PMC3149193.

**Fanning SW**, Murtaugh ML, Horn JR. A combinatorial approach to engineering a dual-specific metal switch antibody. Biochemistry. 2011 Jun 14;50(23):5093-5. doi: 10.1021/bi2003845. Epub 2011 May 18. PMID: 21568282.