TEXAS STATE VITA

I. Academic/Professional Background

A. Name and Title

Name: Dr. Alexander V. Kornienko Title: Professor

B. Educational Background

Degree	*Year*	*University*	*Major*	*Thesis/Dissertation*
PHD	1999	Tufts University	Chemistry	

II. TEACHING

B. Courses Taught:

Texas State University:

BIO 4299 - UNDERGRAD RES

CHEM 2341 - ORG CHEM I

CHEM 2342 - ORG CHEM II

CHEM 4282 - ADV BIOCHEM RES

CHEM 4299 - UNDG RESEARCH

CHEM 4310 - MED CHEM

CHEM 4371 - DIRECTED STUDY

CHEM 4375 - BIOCHEMISTRY

CHEM 4382 - ADV BIOCHEM LAB II

CHEM 4385 - METABOLISM

CHEM 5110 - SEMINAR IN CHEM

CHEM 5199B - THESIS

CHEM 5299B - THESIS

CHEM 5310 - MED CHEM

CHEM 5311 - NATURAL PRODUCTS

CHEM 5321 - ADV ORGNIC CHEM

CHEM 5370 - PROB IN CHEM

CHEM 5375 - BIOCHEMISTRY

CHEM 5385 - METABOLISM

CHEM 5399A - THESIS

CHEM 5399B - THESIS

CHEM 5599B - THESIS

CHEM 5999B - THESIS

CHEM 7110 - ADV IN MOL/BIOPHYS CHEM

CHEM 7200 - GRADUATE RESEARCH

CHEM 7311 - NATURAL PRODUCTS

C. Directed Student Learning (i.e. theses, dissertations, exit committees, etc.):

Supervisor / Chair, Dissertation, "TBD", Status: In Progress. (September 2024 - Present).
Student(s): Ryan Rutledge, Doctoral, PhD.

Supervisor / Chair, Master's Thesis, "TBD", Status: In Progress. (September 2024 - Present).
Student(s): Riaz Hossain, Graduate, MSc.

Supervisor / Chair, Master's Thesis, "TBD", Status: In Progress. (September 2024 - Present).
Student(s): Travis Anderson, Graduate, MSc.

Supervisor / Chair, Master's Thesis, "TBD", Status: In Progress. (September 1, 2019 - Present).
Student(s): Victoria Parra, Graduate, MSc.

Supervisor / Chair, Master's Thesis, "TBD", Status: In Progress. (September 1, 2015 - Present).
Student(s): Sunena Chandra, MSc.

Supervisor / Chair, Master's Thesis, "PYRIDINE-CONTAINING MARINE-DERIVED 7-DEAZAHYPOXANTHINES AS RUTHENIUM PHOTOCAGED CHEMOTHERAPEUTIC AGENTS", Status: Completed. (2021 - May 2024).
Chemistry and Biochemistry, Texas State University.
Student(s): Arben Zejnelovski, Graduate, MSc.

Supervisor / Chair, Master's Thesis, "AN IMPROVED PROCEDURE FOR THE ISOLATION OF THE ANTI-CANCER AGENT NARCICLASINE AND EFFORTS TOWARDS THE SYNTHESIS OF ITS WATER-SOLUBLE PRODRUGS", Status: Completed. (January 17, 2021 - December 2023).
Student(s): Ryan Rutledge, Graduate, MSc.

Member, Master's Thesis, "THE SYNTHESIS AND UTILITY OF NOVEL N-ALKYNYL AZOLES", Status: Completed. (September 1, 2021 - May 2022).
Student(s): Jennifer Navarro, Graduate, MSc.

Supervisor / Chair, Master's Thesis, "SYNTHESIS OF SPHAEROPSIDIN A DERIVATIVES IN A SEARCH FOR COMPOUNDS ACTIVE AGAINST DRUG-RESISTANT CANCER", Status: Completed. (September 1, 2020 - May 2022).
Chemistry and Biochemistry, Texas State University.
Student(s): Iram Majeed, Graduate, MSc.

Supervisor / Chair, Master's Thesis, Status: Completed. (January 21, 2019 - 2021).
Student(s): Alyssa Henson, Graduate, MSc.

Member, Master's Thesis, "CHARACTERIZING THE ACTIVITY OF THREENOVEL DIFFERENTIATION-INDUCING COMPOUNDS IN NEUROBLASTOMA CELLS", Status: Completed. (May 2020).
Student(s): Alejandro Oviedo, Graduate, MSc.

Member, Master's Thesis, "Synthesis of CAPA and its Analogues for Analysis of Anti-Cancer Activity, and Computational Docking of CAPE, CAPA and Analogues with the DRS of p38α", Status: Completed. (May 2020).
Student(s): Mauricio Jemal, Graduate, MSc.

Supervisor / Chair, Master's Thesis, "NOVEL NEUROBLASTOMA DIFFERENTIATING AGENTS", Status: Completed. (September 1, 2018 - May 15, 2020). Chemistry and Biochemistry, Texas State University.
Student(s): Breana Laguera, Graduate, MSc.

Member, Master's Thesis, Status: Completed. (2016 - 2017).
Student(s): Cassie Deardorff.

Additional Comments: Supervisor – Dr. Hudnall

Member, Master's Thesis, Status: Completed. (2016 - 2017).
Student(s): Christopher Brown.

Additional Comments: Supervisor – Dr. Brittain

Member, Master's Thesis, Status: Completed. (2016 - 2017).
Student(s): Christopher Munoz.

Additional Comments: Supervisor – Dr. Betancourt

Member, Master's Thesis, Status: Completed. (2016 - 2017).
Student(s): Xu Wang.

Additional Comments: Supervisor – Dr. Li

Member, Master's Thesis, Status: Completed. (2016 - 2017).
Student(s): Yuanfang Ling.

Additional Comments: Supervisor – Dr. Li

Supervisor / Chair, Master's Thesis, Status: Completed. (2015 - 2017).
Student(s): Robert Scott.

Supervisor / Chair, Master's Thesis, Status: Completed. (2016).
Student(s): David Thacker.

Supervisor / Chair, Master's Thesis, Status: Completed. (2016).
Student(s): Kelsey Middleton.

Member, Master's Thesis, Status: Completed. (2014).
Student(s): Robert Aaron Rodgers.
Additional Comments: Supervisor – Dr. Brittain

Co-Supervisor, Master's Thesis, Status: Completed. (2014).
Student(s): Roberta Rodriguez.

D. Courses Prepared and Curriculum Development:

Chem 5321 - Advanced Organic Chemistry, New Course. Taught: January 2019 - May 2019.

ADVANCES IN MOLECULAR AND BIOPHYSICAL CHEMISTRY, New Course, Texas State University. Taught: September 2024 - December 2024.
SYLLABUS-CHEM7110_Fall2024-1.doc
Rotation_Research_Presentation-1.docx

Medicinal Chemistry CHEM 5310, New Course, Texas State University. Taught: 2016.

F. Other:

Undergraduate Research Students in the lab: Vincent Do, Carson King, Robert Rubiano, Nikesh Mandal. (2023).

Undergraduate Students in the Lab. (January 1, 2020 - December 31, 2020).

Additional Comments: Andrew Johns, Zoey Caldwell, Monnette Villarreal, Arben Zejnelovski

Undergraduate Students in the Lab. (January 1, 2019 - December 31, 2019).

Additional Comments: Undergraduate students: Andrew Johhs, Arben Zejnelovski, Monette Villareal, Eden Rathbun

Undergraduate Students in the Lab. (January 1, 2018 - December 31, 2018).

Additional Comments: Undergraduate students in the lab in 2018: Arben Zejnelovski, Alyssa Henson, Andrew Johns, Alexis Symons

Undergraduate Students in the Lab: Kenyi, Mercybrender; Mia Acevedo; Cassady, Kayla. (January 1, 2022 - December 31, 2023).

Student Accomplishments:

Award:

Supervisor, Kayla Cassady is honored as Best Undergraduate Research Student. (2023).
Student(s): Kayla Cassady.

Performance:

Supervisor, Ryan Rutledge accepted to PhD program at Texas State. (2024).
Student(s): Ryan Rutledge, Graduate, MSc.

Students accepted to top PhD programs:

Supervisor, Victoria Parra Texas A&M. (2021).

Supervisor, Breana Laguera Emory University, Anrew Johns Columbia University. (2020).

Supervisor, Annie Hooper to University of Illiois Urbana-Champaign. (2019).

Vladimir Maslivetc gets a job at Salk Inistitute:

Supervisor, Vladimir Maslivetc gets a job at Salk Inistitute. (2022).
Student(s): Vladimir Maslivetc, Doctoral.

job:

Supervisor, Annie Hooper is finishing her PhD and get a job at Abbvie Pharmaceuticals. (2022).
Student(s): Annie Hooper.

III. SCHOLARLY/CREATIVE

A. Works in Print (including works accepted, forthcoming, in press):

1. Books:

d. Chapters in Books:

Refereed:

KORNIENKO, A., van der Westhuyzen, A., Frolova, L., & van Otterlo, W. (2018). The rigidins: isolation, bioactivity, and total synthesis – novel pyrrolo[2,3-d]pyrimidine analogues using multicomponent reactions. In *In "The alkaloids"* (Vol. 79, pp. 191–220). SAN MARCOS, US: Elsevier Inc. Academic Press.
alkaloids-1.pdf

Pereira, R., Dasari, R., Lefranc, F., Kornienko, A., Kiss, R., & Gomes, N. (2017). Targeting enzymatic pathways with marine-derived clinical agents. In *Natural products targeting clinically relevant enzymes*. Wiley-VCH Verlag GnmH & Co.

2. Articles:

a. Refereed Journal Articles:

Van der Westhuyzen, A., Ashraf, N., Conradie, D., Loots, L., Kaschula, C., Pelly, S., … van Otterlo, W. (2024). Improved rigidin-inspired antiproliferative agents with modifications on the 7-deazahypoxanthine C7/C8 ring systems. *Journal of Medicinal Chemistry*, *67*, 9950–9975.
JMC-1.pdf

Ingels, A., Scott, R., Hooper, A., van der Westhuyzen, A., Wagh, S., de Meester, J., … Mathieu, V. (2024). New hemisynthetic derivatives of sphaeropsidin phytotoxins triggering severe endoplasmic reticulum swelling in cancer cells. *Scientific Reports*, *14*, 14674.
ScietificReports-1.pdf

Maslivetc, V., Hasan, N., Boari, A., Zejnelovski, A., Evidente, A., Sun, D., & Kornienko, A. V. (2024). Ophiobolin A derivatives with enhanced activities under tumor-relevant acidic conditions. *Bioorganic and Medicinal Chemistry Letters*, *110*, 129863.
OpA_BMCL-1.pdf

Arutiunov, N., Aksenov, D., Edvall, C., Kurenkov, I., Aksenova, I., Zatsepilina, A., … Kornienko, A. V. (2024). Syntheses of 3-(2-nitrovinyl)indoles, benzo[a]carbazoles, naphto[2,1-a]carbazoles, and 1-hydroxy-b-carbolines lead to identification of antiproliferative compounds active under hypoxia. *Journal of Organic Chemistry*, *89*, 13923–13936.
JOC_2024-1.pdf

Aksenov, D., Smith, J., Aksenov, A., Prityko, L., Aksenov, N., Kuzminov, I., … Kornienko, A. V. (2024). 2-(3-Indolyl)acetamides and their oxazoline analogues: Anticancer SAR study. *Bioorganic and Medicinal Chemistry Letters*, *102*, 129681.
AKS_BMCL-1.pdf

Bretin, L., Husiev, Y., Ramu, V., Zhang, L., Hakkennes, M., Abyar, S., … Bonnet, S. (2024). Red-Light Activation of a Microtubule Polymerization Inhibitor via Amide Functionalization of the Ruthenium Photocage. *Angewandte Chemie International Edition English*, e202316425.
Angew Chem-1.pdf

Wagh, S. B., Berthold, D., Majeed, I., Lewis, L., Schilter, D., Mertens, B., … Kornienko, A. V. (2024). Sphaeropsidin A C15-C16 Cross-Metathesis

Analogues with Potent Anticancer Activity. *ChemMedChem*, e202400288. https://doi.org/10.1002/cmdc.202400288
https://doi.org/10.1002/cmdc.202400288
schilter Sphaeropsidin A C15 C16 Cross Metathesis Analogues-1.pdf

Aksenov, D. A., Smith, J. L., Aksenov, A. V., Prityko, L. A., Aksenov, N. A., Kuzminov, I. K., … Kornienko, A. V. (2024). 2-(3-Indolyl)acetamides and their oxazoline analogues: Anticancer SAR study. *Bioorg Med Chem Lett.*, *102*, 1–6. https://doi.org/10.1016/j.bmcl.2024.129681
2024 BMCL-AK March-1.pdf
Additional Comments: DOI: 10.1016/j.bmcl.2024.129681
2023 IF 4.9

Arutiunov, N., Aksenov, A., Aksenov, D., Kurenkov, I., Aksenova, I., Zatsepilina, A., … Kornienko, A. V. (2023). Convenient synthesis of (Z)-3-(1-aryl-2-nitrovinyl)-indoles. *Tetrahedron Letters*, *129*, 154722.
TL-AKS-1.pdf

Bretin, L., Husiev, Y., Ramu, V., Zhang, L., Hakkennes, M., Abyar, S., … Bonnet, S. (2023). Red-Light Activation of Microtubule Polymerization Inhibitor via Amide Functionalization of the Ruthenium Photocage. *Angewandte Chemie*, *63*(5), e202316425. https://doi.org/10.1002/anie.202316425
https://onlinelibrary.wiley.com/doi/10.1002/anie.202316425
40 - Red-Light Activation of a Microtubule Polymerization Inhibitor via Amide Functionalization of the Ruthenium Photocage -1.pdf

Aksenov, N., Arutiunov, N., Aksenov, A., Kirilov, N., Aksenova, I., Aksenov, D., … Kornienko, A. V. (2023). Synthesis of β-Carbolines with Electrocyclic Cyclization of 3-Nitrovinylindoles. *International Journal of Molecular Sciences*, *24*, 13107.
ijms-Carbolines-1.pdf

C., A. J., Oviedo, A., Zhao, Z., Du, L., & Kornienko, A. V. (2023). Discovery of 5-sulfonyltetrazoles as neuroblastoma differentiation agents. *Bioorg. Med. Chem. Lett.*, *94*, 1–4. Retrieved from https://doi.org/10.1016/j.bmcl.2023.129455
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Additional Comments: Impact factor 2.94

Mathieu, V., Laguera, B., Masi, M., Dulanto, S. A., Bingham, T., Hernandez, L., … Lane, M. A. (2022). Amaryllidaceae Alkaloids Decrease the Proliferation, Invasion, and Secretion of Clinically Relevant Cytokines by Cultured Human Colon Cancer Cells. *Biomolecules*, *12*. Published.
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Mathieu, V., Superchi, S., Masi, M., Scafato, P., KORNIENKO, A. V., & Evidente, A. (2022). In Vitro Effects of Fungal Phytotoxins on Cancer Cell

Viability: First Insight into Structure Activity Relationship of a Potent Metabolite of Cochliobolus Australiensis Radicinin. *Toxins*, *14*(517), 1–10.
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Wagh, S., Maslivetc, V., La Clair, J. J., & Kornienko, A. V. (2022). Medicinal chemical optimization of fluorescent pyrrole-based COX-2 probes. *Tetrahedron*, *123*. Published.
Tetrahedron-Pyrroles-1.pdf

Venkatesan, R., Hussein, M. A., Moses, L., Liu, J., Khetani, S., Kornienko, A. V., & Munirathinam, G. (2022). Polygodial, a Sesquiterpene Dialdehyde, Activates Apoptotic Signaling in Castration Resistant Prostate Cancer Cell Lines by Inducing Oxidative Stress. *Cancers*, *14*. Published.
Cancers-Munirathinam-1.pdf

Aksenov, A., Kirilov, N., Arutuinov, N., Aksenov, D., Kuzminov, I., Aksenov, N., … Rubin, M. (2022). Reductive Cleavage of 4′H Spiro[indole-3,5′-isoxazoles] En Route to 2 (1H Indol-3-yl)acetamides with Anticancer Activities. *The Journal of Organic Chemistry*, *87*, 13955–13964.
JOC-AKS-1.pdf

Maslivetc, V., La Clair, J. J., & Kornienko, A. V. (2022). Three-component assembly of stabilized fluorescent isoindoles. *RSC Advances*, *12*. Published.
RSC Adv-2.pdf

Stollmaier, J. G., Thomson, J., Endoma-Arias, M. A., Simionescu, R., Vernaza, A., Mesa-Diaz, N., … Hudlicky, T. (2022). Design and Synthesis of C-1 Methoxycarbonyl Derivative of Narciclasine and Its Biological Activity. *Molecules*, *27*, 1–17. https://doi.org/10.3390/molecules27134141 https://pubmed.ncbi.nlm.nih.gov/35744934/
4. Du Pub 2022 June AK-2 Molecules-NCS IF 4.927-1.pdf

Habaz, L., Bedard, K., Smith, M., Du, L., Kornienko, A., & Hudlicky, T. (2022). Conversion of Natural Narciclasine to Its C-1 and C-6 Derivatives and Their Antitumor Activity Evaluation: Some Unusual Chemistry of Narciclasine. *Molecules*, *27*, 1–13. https://doi.org/10.3390/molecules27123809 https://pubmed.ncbi.nlm.nih.gov/35744934/
3. Du Pub 2022 June AK-1 molecules Narciclasine IF 4.927-1.pdf

Aksenov, A. V., Arutiunov, N. A., Kirilov, N. K., Aksenov, D. A., Grishin, I. Y., Aksenov, N. A., … Rubin, M. (2021). [3+2]-Annulation of pyridinium ylides with 1-chloro-2-nitrostyrenes unveils a tubulin polymerization inhibitor. *Organic & Biomolecular Chemistry*, *19*, 7234. https://doi.org/doi: 10.1039/d1ob01141c
[3 + 2]-Annulation of pyridinium ylides with 1-chloro-2-nitrostyrenes unveils a tubulin polymerization inhibitor-1.pdf

Reisenauer, K. N., Tao, Y. F., Das, P., Song, S. X., Svatek, H., D, P. S., … Taube, J. (2021). Epithelial-mesenchymal transition sensitizes breast cancer cells to

cell death via the fungus-derived sester-terpenoid ophiobolin A. *Scientific Reports*, *11*(10652).
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Wagh, S. B., Maslivetc, V., La Clair, J. J., & Kornienko, A. V. (2021). Lessons in organic fluorescent probe discovery. *ChemBioChem*, *22*, 1–32.
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Maslivetc, V., Laguera, B., Chandra, S., Dasari, R., Olivier, W., Smith, J., … Kornienko, A. V. (2021). Polygodial and Ophiobolin A Analogues for Covalent Crosslinking of Anticancer Targets. *International Journal of Molecular Sciences*, *22*. Published.
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Ticli, V., Zhao, Z., Du, L., Kornienko, A. V., & Hudlicky, T. (2021). Synthesis and biological evaluation of 10-benzyloxy-Narciclasine. *Tetrahedron*, *101*, 132505. https://doi.org/doi: 10.1016/j.tet.2021.132505 doi: 10.1016/j.tet.2021.132505
2021-Oct Kornienko Tetrahedron-Narciclasine-1.pdf

Wagh, S., Maslivetc, V., La Clair, J., & Kornienko, A. V. (2020). A fluorescent target-guided Paal–Knorr reaction. *RSC Advances*, *10*, 37035–37039.
RSC advances-1.pdf

Van der Westhuyzen, A., Ingels, A., Rosière, R., Amighi, K., Oberer, L., Gustafson, K., … van Otterlo, W. (2020). Deciphering the chemical instability of sphaeropsidin A under physiological conditions – degradation studies and structural elucidation of the major metabolite. *Organic & Biomolecular Chemistry*, *18*, 8147–8160.
SphA-Willem-1.pdf

Turner, D., Edwards, L., Kornienko, A. V., Frolova, L., & Rogelj, S. (2020). Synergistic action of substituted indole derivatives and clinically used antibiotics against drug-resistant bacteria. *Future Microbiology, ahead of print*. Published.
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Aksenov, N. A., Aksenov, A. V., Kirilov, N. K., Arutiunov, N. A., Aksenov, D. A., Maslivetc, V., … Kornienko, A. V. (2020). Nitroalkanes as electrophiles: synthesis of triazole-fused heterocycles with neuroblastoma differentiation activity. *Organic & Biomolecular Chemistry*, *18*(34), 6651–6664. https://doi.org/https://doi.org/10.1039/D0OB01007C
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Eyong, K. O., Ketsemen, H. L., Zhao, Z., Du, L., Ingels, A., Mathieu, V., … Romo, D. (2020). Anti-proliferative activity of naphthoquinones and indane carboxylic acids from lapachol against a panel of human cancer cell lines. *Medicinal Chemistry Research*, *29*, 1058–1066.

https://doi.org/10.1007/s00044-020-02545-0
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1. 2020 MCRE naphthoquinones-1.pdf
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Kornienko, A. V., Karakoyun, C., Masi, M., Chimino, A., Ali Onur, M., Unver Somer, N., & Evidente, A. (2019). A Brief Up-to-Date Overview of Amaryllidaceae Alkaloids: Phytochemical Studies of Narcissus tazetta subsp. tazetta L., Collected in Turkey. *Natura Product Communications*, 1–6.
1934578x19872906-1.pdf

Kornienko, A. V., Segat, G., Moreira, C., Santos, E., Heller, M., Schwanke, R., … Calixto, J. (2019). A new series of acetohydroxamates shows in vitro and in vivo anticancer activity against melanoma. *Investigational New Drugs*, *https://doi.org/10.1007/s10637-019-00849-6*. Published.
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Kornienko, A. V., Turner, D., Just, J., Dasari, R., Smith, J., Bissimber, A., & Rogelj, S. (2019). Activity of natural and synthetic polygodial derivatives against Trypanosoma cruzi amastigotes, trypomastigotes and epimastigotes. *NATURAL PRODUCT RESEARCH*, DOI: 10.1080/14786419.2019.1597350.
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Kornienko, A. V., Lefranc, F., Koutsaviti, A., Ioannou, E., Roussis, V., Kiss, R., & Newman, D. (2019). Algae metabolites: from in vitro growth inhibitory effects to promising anticancer activity. *Natural Product Reports*, *36*, 810–841.
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Kornienko, A. V., Masi, M., Van slambrouck S, Gunawardana, S., van Rensburg, M., James, P., … Evidente, A. (2019). Alkaloids isolated from Haemanthus humilis Jacq., an indigenous South African Amaryllidaceae: Anticancer activity of coccinine and montanine. *South African Journal of Botany*, *126*, 277–281.
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Kornienko, A. V., Masi, M., Dasari, R., Evidente, A., & Mathieu, V. (2019). Chemistry and biology of ophiobolin A and its congeners. *Bioorganic and Medicinal Chemistry Letters*, *29*, 859–869.
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Kornienko, A. V., Pereira, R., Evdokimov, N., Lefranc, F., Valentao, P., Pereira, D., … Gomes, N. (2019). Marine-Derived Anticancer Agents: Clinical Benefits, Innovative Mechanisms, and New Targets. *Marine Drugs*, *17*, 329.
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Van Rixel, V. H. S., Ramu, V., Auyeung, A. B., Beztsinna, N., Leger, D. Y., Lameijer, L. N., … Bonnet, S. (2019). Photo-Uncaging of a Microtubule-Targeted Rigidin Analogue in Hypoxic Cancer Cells and in a Xenograft

Mouse Model. *Journal of the American Chemical Society*, *141*(46), 18444–18454. https://doi.org/10.1021/jacs.9b07225
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Photo-Uncaging of a Microtubule-Targeted Rigidin Analogue in Hypoxic Cancer Cells and in a Xenograft Mouse Model-1.pdf

Aksenov, A. V., Aksenov, D. A., Arutiunov, N. A., Aksenov, N. A., Aleksandrova, E. V., Zhao, Z., … Rubin, M. (2019). Synthesis of Spiro[indole-3,5'-isoxazoles] with Anticancer Activity via a Formal [4 + 1]-Spirocyclization of Nitroalkenes to Indoles. *The Journal of Organic Chemistry*, *84*(11), 7123–7137. https://doi.org/10.1021/acs.joc.9b00808
2019 JOC LD AK compounds and NB-1.pdf

KORNIENKO, A., Garcia, D., Goncalves-de-Albuquerque, C., da Silva, C., Kiss, R., Dasari, R., … Burth, P. (2018). Effect of polygodial and its direct derivatives on the mammalian Na+/K+-ATPase activity. *European Journal of Pharmacology*, *831*, 1–8.
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KORNIENKO, A., De La Chapa, J., Singha, P., Sallaway, M., Self, K., Nasreldin, R., … Gonzales, C. (2018). Novel polygodial analogs P3 and P27: Efficacious therapeutic agents disrupting mitochondrial function in oral squamous cell carcinoma. *International Journal of Oncology*, *53*, 2627–2636.
Int J Oncol Early Online ijo.2018.4585-1.pdf

KORNIENKO, A., Edwards, L., Turner, D., Champion, C., Khandelwal, M., Zingler, K., … Rogelj, S. (2018). Photoactivated 2,3-distyrilindoles kill multi-drug resistant bacteria. *Bioorganic & Medicinal Chemistry Letters*, *28*, 1879–1886.
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KORNIENKO, A., Dasari, S., Samy, A., Narvekar, P., Dontaraju, V., Dasari, R., & Munirathinam, G. (2018). Polygodial analog induces apoptosis in LNCaP prostate cancer cells. *European Journal of Pharmacology*, *828*, 154–162.
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KORNIENKO, A., Pellegrino, S., Meyer, M., Zorbas, C., Bouchta, S., Saraf, K., … Yusupov, M. (2018). The Amaryllidaceae alkaloid haemanthamine binds the eukaryotic ribosome to repress cancer cell growh. *Structure*, *26*, 416–425.
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Derived from Marine Alkaloid Rigidins: Exploration of the N3 and N9 Positions and Interaction with Multidrug-Resistance Proteins. *Chem Med Chem*, *14*, 322–333. https://doi.org/10.1002/cmdc.201800658 https://onlinelibrary.wiley.com/doi/abs/10.1002/cmdc.201800658
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Govindaraju, K., Masi, M., Colin, M., Mathieu, V., Evidente, A., Hudnall, T. W., & Kornienko, A. V. (2018). Novel Topologically Complex Scaffold Derived from Alkaloid Haemanthamine. *Molecules*, *23*, 255–263. https://doi.org/doi:10.3390/molecules23020255
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Magedov, I. V., Kornienko, A. V., Zotova, T. O., & Drozd, V. N. (1995). A New Convenient Method to Obtain Pyrroles from Tertiary N-Allylthioamides. *Tetrahedron Lett*, *36*(4619).

3. Conference Proceedings:

b. Non-refereed:

Bretin, L., Vadde, R., Zheng, S., Gerhard, S., Zander, S., Kornienko, A. V., & Bonnet, S. (2023). Testing ruthenium-based photoactivated chemotherapy on tumor-bearing mice models as a new treatment for uveal melanoma. In *Photodiagnosis and Photodynamic Therapy* (March, Vol. 41, p. 103403). ScienceDirect.

Ranganathan, S., Kornienko, A. V., Evidente, A., Romo, D., & Taube, J. (2023). Triple negative breast cancer targeted by Ophiobolin A: Epithelial-mesenchymal transition take the lead. In *Cancer Research* (Vol. 83).

B. Works Not in Print:

2. Invited Talks, Lectures, and Presentations:

Kornienko, A. V., Invited Talk, "A Photoactivatable Microtubule- Targeting Cancer Prodrug," Old Dominion University, Old Dominion University, Norfolk, VA, United States. (February 22, 2024).

Kornienko, A. V., PACT4EYE, "Medicinal Chemistry of Marine Alkaloid Rigidins," Leiden University, Gorlaeus laboratories, Leiden, Netherlands. (January 11, 2024).

Simpson, H. N. (First Author/Presenter), Aksenov, A. V. (co-author), Aksenov, N. A. (co-author), Scherbakov, S. V. (co-author), Kornienko, A. V., Du, L. (Sponsor/mentor/author), 2022 University of Texas at Austin Fall Undergraduate Research Symposium (UT-FURS), "Identifying Heterocyclic Compounds with Anti-Cancer Potential in Neuroblastoma," ABRCMS, Austin, TX, United States. (September 19, 2022).
8. DuLab Oral 092422 Hannah UT Symposium-Oral-Award certificate-2.pdf

Kornienko, A. V., Cancer Science and Targeted Therapy Conference, "A Photoactivatable Microtubule-Targeting Rigidin Prodrug," Melbourne, Australia. (September 7, 2021).

Kornienko, A. V., "A photoactivatable microtubule-targeting rigidin prodrug," Baylor University. (November 1, 2019).
Colloquium Schedule for Dr. A. Kornienko-1.docx

Johns, A. (First Author/Presenter), Zhao, Z. (collaborator), Du, L. (Collaborator), Kornienko, A. V. (Sponsor), 2018 Gulf Coast Undergraduate Research Symposium of Rice University, "Preparation of a Mechanistic Probe for a Neuroblastoma Differentiation Agent," Rice University, Houston, TX, United States. (October 6, 2018).

KORNIENKO, A., "NATURAL PRODUCT-BASED ANTICANCER DRUG DISCOVERY," University of Texas San Antonio. (September 7, 2018).

Kornienko, A. V., 3rd Natural Products Conference, "Natural Product-Based Cancer Drug Discovery," Fusion Conferences, Cancun, Mexico. (March 2017).

Kornienko, A. V., "Natural Product-Based Cancer Drug Discovery," Mendeleev University, Moscow, Russia. (January 2017).

Kornienko, A. V., "Natural Product-Based Cancer Drug Discovery," UTHSC Houston, UTHSC Houston, Houston, United States. (January 2017).

Kornienko, A. V., Novel Antibiotics, "Novel Photoactivated Antibiotics," New Mexico Tech, New Mexico Tech, Socorro, United States. (January 2017).

Kornienko, A. V., University of Arizona, "Natural Product-Based Cancer Drug Discovery." (2016).

5. Other Works not in Print:

c. Other Works Not in Print:

Posters:

Ramirez, J. (First Author/Presenter), Smith, J. (co-author), Ross, K. (co-author), Kornienko, A. V. (Author), Du, L. (Sponsor/mentor/author), 2024 The Annual Biomedical Research Conference for Minority Students (ABRCMS), "Identifying novel Heterocyclic Compounds that have anti-cancer potential in neuroblastoma - Jaedyn," ABRCMS, Pittsburgh, PA, United States. (November 15, 2024).
National Conference -2 2023 ABRCMS - Daniela-1.pdf

Kornienko, A. V., King, C., National Meeting of the American Chemical Society, "Sphaeropsidin A C15-C16 Cross-Metathesis Analogues with Potent Anticancer Activity," American Chemical Society, Denver, Denver, CO, United States. (August 2024).

Kornienko, A. V., Sathish, P., National Meeting of the American Chemical Society, "Studies Toward Targeted Ruthenium Complexes for Photoactivated Chemotherapy," American Chemical Society, Denver, Denver, CO, United States. (August 2024).

Kornienko, A. V., Edvall, C., Mallik, S., National Meeting of the American Chemical Society, "Targeted Synergistic Treatment of Triple-Negative Breast Cancer Spheroids," American Chemical Society, Denver, Denver, CO, United States. (August 2024).

Ramirez, J. (First Author/Presenter), Smith, J. (co-author), Kornienko, A. V. (Mentor/author), Du, L. (Sponsor/mentor/author), 2024 Texas State College of Science & Engineering Summer Research Symposium, "Identification of Heterocyclic compounds as Potential Anticancer Agents - Jaedyn," San Marcos, TX, United States. (July 26, 2024).

Kornienko, A. V., AACR Annual Meeting 2024, "Novel efficient isolation and water-soluble prodrug preparation of anti-cancer natural product narciclasine," American Association for Cancer Research, San Diego, San Diego, CA, United States. (April 8, 2024).

Kornienko, A. V., Bonnet, S., AACR-NCI-EORTC INTERNATIONAL CONFERENCE ON MOLECULAR TARGETS AND CANCER THERAPEUTICS, "A photoactivatable microtubule-targeting rigidin prodrug," AACR, Boston. (October 2023).

Rutledge, R., Kornienko, A. V., MALTO Conference, "Studies Towards the Synthesis of Water-Soluble Narciclasine Analogues as Anti-cancer Agents," Houston. (May 2023).

Rastogi, S., Kornienko, A. V., San Antonion Drug Discovery Symposium, "Design and Synthesis of Narciclasine-Alkanoic Acid Analogues: Prodrug for Primary Brain Cancer," San Antonio. (April 2023).

Kornienko, A. V., Cassady, K., Rutledge, R., San Antonio Drug Discovery Symposium, "Isolation of Anticancer Agent Narciclasine from Daffodil Bulbs Using the Soxhlet Extraction Method," San Antonio. (April 2023).

Rutledge, R., Rastogi, S., Cassady, K., Acevedo, M., Kornienko, A. V., San Antonio Drug Discovery Symposium, "Studies Towards the Synthesis of Water-Soluble Narciclasine Analogues as Anti-cancer Agents," San Antonio. (April 2023).

Smith, J. L. (First Author/Presenter), Aksenov, A. V. (co-author), Aksenov, N. A. (co-author), Aksenov, D. A., Scherbakov, S. V. (co-author), Kornienko, A. V. (co-author), Du, L. (Sponsor/mentor/author), Spring 2023 Undergraduate Research Conference, "Identification of Potential Anti-Cancerous Activity in Neuroblastoma from a Heterocyclic Compound Library," Texas State University, San Marcos, TX, United States. (April 20, 2023).
Local conference-1 TXST STEM 042023 - Jadyn Award winner-1.pdf

Rastogi, S. K. (Author), La Clair, J. J. (Author), Kornienko, A. V. (Author), National Meeting of the American Chemical Society, "13C-15N Heteronuclear Coupling NMR Tool to Identify Novel Isoindole Compounds," American Chemical Society, Chicago. (2022).
Rastogi_ACS_Draft-1_08182022-1.ppt

Zejnelovski, A. (Author), Kornienko, A. V. (Author), National Meeting of the American Chemical Society, "Synthesis of pyridinyl 7-deazahypoxanthines for photoactivated chemotherapy," American Chemical Society, Chicago. (2022).
Poster_ACS2020-2-1.pptx

Yun, J. (Author), Rutledge, R. (Author), Kornienko, A. V. (Author), REU, "The Investigation on Antimetastatic Properties in Narcissus Tazetta: Narciclasine Solubility and Apoptosis-Resistant Cancers," Texas State University. (2022).
YUN poster-1.pptx

Simpson, H. N. (First Author/Presenter), Aksenov, A. V. (co-author), Aksenov, N. A. (co-author), Scherbakov, S. V. (co-author), Kornienko, A. V. (co-

author), Du, L. (Sponsor/mentor/author), 2022 The Annual Biomedical Research Conference for Minority Students (ABRCMS), "Identifying Heterocyclic Compounds with Anti-Cancer Potential in Neuroblastoma," ABRCMS, Anaheim, CA, United States. (November 22, 2022).
9. DuLab 112222 Hannah ABRCMS Poster-1.pdf

Parra, V., Kornienko, A. V., 2020 Annual Biomedical Research Conference for Minority Students (ABRCMS), "Innovative Compounds for Overcoming Antibiotic Resistance," San Marcos, TX. (November 9, 2020).

Oviedo, A. (First Author/Presenter), Zhao, Z. (co-author), Kornienko, A. V. (author), Du, L. (Sponsor/mentoer/author), 2020 Women in Science and Engineering Conference (WISE), "Characterizing the differentiation-inducing activity of ChemBridge small molecules in neuroblastoma cell lines with different genetic background," Texas State University, San Marcos, TX, United States. (March 6, 2020).
2020 Alex O WiSE Poster-1.pdf

Parra, V., Kornienko, A. V., 2020 Women in Science and Engineering Conference (WISE), "Innovative Compounds for Overcoming Antibiotic Resistance," San Marcos, TX. (March 6, 2020).

Croft, T. (presenting author), Shanks, E. (author), Kornienko, A. V. (author), Hudnall, T. W. (principal investigator), Texas State CheMIE REU Poster SEssion, "Photorelease of Anticancer Reagents from Cationic BODIPYs: Applications in Photochemotherapy." (August 2019).
Tristan_Summer 2019 REU Poster Final-1.pdf

Laguera, B. (First Author/Presenter), Zhao, Z. (co-author), Du, L. (co-author), Kornienko, A. (senior author/sponsor), 2019 Center of Innovative Drug Design (CIDD) Drug Discovery Symposium, "Novel Neuroblastoma Differentiating Agents," University of Texas at San Antonio, San Antonio, TX, United States. (April 29, 2019).
CIDD Breana L-1.pdf

Johns, A. (First Author/Presenter), Zhao, Z. (co-author), Du, L. (co-author), Kornienko, A. (senior author/sponsor), 2019 Center of Innovative Drug Design (CIDD) Drug Discovery Symposium, "Structure Activity Relationship Study of a Novel Neuroblastoma Differentiation Agent," University of Texas at San Antonio, San Antonio, TX, United States. (April 29, 2019).
2019 March Andrew J CIDD poster-1.pdf

Oviedo, A. (First Author/Presenter), Zhao, Z. (co-author), Kornienko, A. V. (author), Du, L. (Senior author/sponsor), 2019 Women in Science and Engineering Conference (WISE), "Characterizing activity of three novel differentiation-inducing small synthetic compounds in neuroblastoma cell

line BE(2)-C," Texas State University, San Marcos, TX, United States. (March 8, 2019).
2019 March AlexO WISE poster-1.pdf

KORNIENKO, A. (PI), Laguera, B., SACNAS, "The Effects of Polygodial and its Analogs Against Oral Cancer," Texas State University, San Antonio. (2018).
Poster ABRCMS working-1.pptx

KORNIENKO, A., Laguera, B., 2018 Annual Biomedical Research Conference for Minority Students (ABRCMS), "The Effects of Polygodial and its Analogs Against Oral Cancer," Texas State University, Indiana Convention Center in Indianapolis, IN. (November 14, 2018).
Poster ABRCMS working-2.pptx

Johns, A. (First Author/Presenter), Zhao, Z. (co-author), Du, L. (co-author), Kornienko, A. (senior author/sponsor), 2018 UTSA College of Sciences Research in Service for a Better Tomorrow conference, "Preparation of a Mechanistic Probe for a Neuroblastoma Differentiation Agent," University of Texas at San Antonio, San Antonio, TX, United States. (October 5, 2018).
Poster Presentation Andrew Johns Mechanistic Probe-1.pdf

Johns, A. (First Author/Presenter), Zhao, Z. (co-author), Du, L. (co-author), Kornienko, A. (senior author/sponsor), 2018 The 12th Annual Undergraduate Research Conference of Texas State, "Preparation of a Mechanistic Probe for a Neuroblastoma Differentiation Agent," Texas State University, San Marcos, TX, United States. (April 20, 2018).

Johns, A. (First Author/Presenter), Hooper, A. (co-author), Zhao, Z. (co-author), Du, L. (co-author), Kornienko, A. (senior author/sponsor), Texas State Chemistry & Biochemistry Colloquium, "Preparation of a Mechanistic Probe for a Neuroblastoma Differentiation Agent," Texas State University, Dept of Chemistry and Biochemistry, San Marcos, TX, United States. (April 6, 2018).

Betancourt, T., Du, L., Kornienko, A. V., Kerwin, S. M., Irvin, J. A., Lewis, L., Beall, G. W., Texas State University Health Scholar Showcase, "Drug Delivery and Therapeutics Research," Texas State University, San Marcos, TX. (February 2017).

Kornienko, A. V., Dasari, R., American Association for Cancer Research Annual Meeting, April, 2016, New Orleans, LA, ". Polygodial: A potential sesquiterpene dialdehyde for castration-resistant prostate cancer treatment." (2016).

Kornienko, A. V., D., ACS National Meeting, March 2016, San Diego, CA, "Synthesis of a Novel Lycorine Analog as a Potential Anticancer Agent." (2016).

Patents:

Kornienko, Alexander Vladimir, Rutledge, Ryan. "NARCICLASINE WATER-SOLUBLE PRODRUG". United States. Number / ID: 63/570,713. (Date of Application: 2024).

Kornienko, Alexander Vladimir, Wagh, Sachin, Mathieu, Veronique, Ingels, Aude, van Otterlo, Willem, Evidente, Antonio, Berthold, Dino. "Sphaeropsidin derivatives to combat cancers". Patent Cooperation Treaty. Number / ID: PCT/US2023/035648. (Date of Application: 2023).

Kornienko, Alexander Vladimir, Du, Liqin, Zhao, Zhenze, Laguera, Breana, Johns, Andrew. "Novel Differentiation Agents to Combat Neuroblastoma". International. Number / ID: 2020-004, Texas State No.
2020021 Invention form differentiaiton compounds-1.pdf

Kornienko, Alexander Vladimir, Betancourt, Tania, Bonnet, S., van Rixel, V. "Photoactivatable Cancer Prodrugs". International. Number / ID: US 2020/0239503 A1. (Date Awarded: 2020).
US20200239503A1 - Photoactivatable Cancer Prodrug-1.pdf

C. Scholarly / Creative Grants and Contracts:

1. Funded External Grants and Contracts:

Lewis, Karen A (Principal), Luxford, Cynthia J (Co-Principal), Wheeler, Brittany Marie (Co-Principal), Webre, Whitney Ann (Co-Principal), Holland, Cory Lee (Co-Principal), Betancourt, Tania (Supporting), Brittain, William J (Supporting), Hudnall, Todd W (Supporting), Irvin, Jennifer A (Supporting), Kerwin, Sean Michael (Supporting), Kornienko, Alexander Vladimir (Supporting), Peterson, Ryan Loren (Supporting), Rhodes, Christopher Peter (Supporting). REU Site: A Chemistry REU on Molecular Innovation and Exploration (CheMIE), National Science Foundation, Federal, $378,188.00. (Submitted: August 25, 2021, Funded: April 15, 2022 - Present). Grant.
Project Summary-1.pdf
Lewis_REU_CoverSheet-1.pdf
CheMIE_REU_2022NOA-1.pdf

Kornienko, Alexander Vladimir (Co-Principal), Percent Contribution: 7%, Romo, Daniel (Principal), Percent Contribution: 93%. Pharmacophore-Directed Retrosynthesis Applied to Bioactive Natural Products Informing Mechanism

of Action Studies, NIH, Federal, $2,250,000.00. (Submitted: January 2024, Funded: January 2025 - January 2030). Grant.

Hudnall, Todd W (Principal), Kerwin, Sean Michael (Co-Principal), Peterson, Ryan Loren (Co-Principal), Shi, Xijun (Co-Principal), Schilter, David (Co-Principal), Haque, Ariful (Supporting), Droopad, Ravindranath (Supporting), Chen, Yihong (Supporting), Brittain, Bill (Supporting), Geerts, Wilhelmus J (Supporting), Kornienko, Alexander Vladimir (Supporting). MRI: Acquisition of a Single Crystal X-ray Diffractometer to Advance Structural Analysis in Chemical, Biochemical, and Material Sciences at Texas State University, National Science Foundation, Federal, $485,000.00. (Submitted: November 15, 2023, Funded: August 15, 2024 - July 31, 2027). Grant.

Kornienko, Alexander Vladimir (Co-Principal), Percent Contribution: 4.2%, Romo, Daniel (Principal), Percent Contribution: 95.8%. Pharmacophore-Directed Retrosynthesis Applied to Bioactive Natural Products Informing Mechanism of Action Studies, National Institutes of Health, Federal, $1,422,000.00. (Submitted: February 5, 2019, Funded: January 1, 2020 - December 31, 2025). Grant.

Lewis, Karen A (Principal), Kerwin, Sean Michael (Co-Principal), Whitten, Steven T (Co-Principal), Kornienko, Alexander Vladimir (Supporting), Peterson, Ryan Loren (Supporting), Xue, Xiaoyu (Supporting). MRI: Acquisition of Automated Isothermal Titration Calorimeter for Biophysical Research at Texas State University, National Science Foundation, Federal, $262,280.00. (Submitted: January 19, 2022, Funded: September 1, 2022 - August 31, 2025). Grant.

20220119_MRI_topsheet-1.pdf
MRI_NSF_2216145_NOA-1.pdf
Additional Comments: 30% required cost-share

Total Intended Award Amount: $265,280
Total Approved Cost Share or Matching Amount: $114,039
Total Project Cost: $379,319

Kornienko, Alexander Vladimir (Principal), Percent Contribution: 77%, Sun, Dandan (Co-Principal), Percent Contribution: 23%. Acid-Sensitive Glioblastoma Prodrugs Derived from Ophiobolin A, National Institutes of Health, Federal, $461,764.00. (Funded: February 1, 2019 - January 31, 2023). Grant.

Kornienko, Alexander Vladimir (Principal), Percent Contribution: 75%, La Clair, James (Co-Principal), Percent Contribution: 25%. Tandem Discovery of Drug Leads and Targets via Paal-Knorr reaction, National Institutes of Health, Federal, $374,000.00. (Funded: September 1, 2019 - August 31, 2021). Grant.

Du, Liqin (Principal), Percent Contribution: 10%, Kornienko, Alexander (Other), Percent Contribution: 5%, Houhgton, Peter (Other), Percent Contribution: 1%. Discovery of new differentiation agents for neuroblastoma therapy, National Institute of Health, NCI, R15, resubmissiom, Federal, $461,574.00. (Funded: August 1, 2017 - July 31, 2020). Grant.
NIH_NOA_1R15CA213199-01A1-DU-1.PDF
Additional Comments: $300,000 direct

Kornienko, Alexander Vladimir (Principal), Romo (Co-Principal), Rhotago=i (Co-Principal). Mode of Action of the Amaryllidaceae Alkaloid Lycorine-Promising Anticancer Agent, NIH/NCI/AREA – CA186046-01A1, $475,518.00. (Funded: July 15, 2014 - June 30, 2017). Grant.

Kornienko, Alexander Vladimir (Principal), Rogelj, Sneza (Co-Principal). Chemical Biology and Screening Collaborative Core, NIH/NCRR/INBRE - RR016480, $1,505,000.00. (Funded: May 1, 2009 - February 28, 2014). Grant.

Kornienko, Alexander Vladimir (Principal). Heterocyclic Analogues of Podophyllotoxin Accessible by a One-Step Multicomponent Synthesis, NIH/NCI/AREA - CA135579, $210,000.00. (Funded: March 1, 2009 - February 29, 2012). Grant.

Kornienko, Alexander Vladimir (Principal). Elucidation of the Pancratistatin Cytotoxic Pharmacophore, NIH/NCRR/INBRE - RR016480, $751,410.00. (Funded: January 7, 2004 - June 30, 2009). Grant.

Kornienko, Alexander Vladimir (Principal). New Mexico Molecular Libraries Screening Center, NIH/NIMH and NHGRI - MH074425, $68,600.00. (Funded: July 1, 2007 - June 30, 2008). Grant.

Kornienko, Alexander Vladimir (Principal). Practical Enantiodivergent Synthesis of (+) and (-)-Pancratistatin from D-Xylose, NIH/NCI/AREA - CA099957-02, $181,600.00. (Funded: June 1, 2005 - May 31, 2008). Grant.

Kornienko, Alexander Vladimir (Principal). Direct Route to Propylene Oxide: Confronting an Industrial “Holy Grail” with a Versatile Platinum Catalyst, Sandia National Labs, $40,000.00. (Funded: October 1, 2003 - September 30, 2005). Grant.

Kornienko, Alexander Vladimir (Principal). Practical Enantiodivergent Synthesis of (+) and (-)-Pancratistatin from D-Xylose, NIH/NCI/AREA - CA099957-01, $121,000.00. (Funded: June 1, 2003 - May 31, 2005). Grant.

2. Submitted, but not Funded, External Grants and Contracts:

Kornienko, Alexander Vladimir (Principal), Percent Contribution: 50%, Lane, Michelle (Principal), Percent Contribution: 50%. Targeting colon cancer with

tumor site selective prodrugs, National Institutes of Health, Federal, $1,824,737.00. (Submitted: 2021, Funded: 2022 - 2027). Grant.

Kornienko, Alexander Vladimir (Principal), Percent Contribution: 100%. Photocaged P-gp Inhibitors, CPRIT, State, $250,000.00. (Submitted: December 12, 2024, Funded: June 1, 2025 - May 31, 2027). Grant.

Kornienko, Alexander Vladimir (Principal), Percent Contribution: 50%, Lane, Michelle (Co-Principal), Percent Contribution: 25%, La Clair, Jim (Co-Principal), Percent Contribution: 18%, Bonnet, Sylvestre (Co-Principal), Percent Contribution: 7%. Guidelines for the Discovery and Development of Photoactivated Chemotherapy for Colorectal Cancer, NIH, Federal, $1,691,818.00. (Submitted: October 2021, Funded: June 1, 2022 - May 31, 2027). Grant.

Kornienko, Alexander Vladimir (Principal), Percent Contribution: 59%, La Clair, James (Principal), Percent Contribution: 27%, Rogelj, Snezna (Principal), Percent Contribution: 14%. Enabling Antifungal Medicinal Chemistry by Encoded Bond Discovery, National Institutes of Health, Federal, $428,336.00. (Submitted: February 2024, Funded: December 1, 2024 - November 30, 2026). Grant.

Kornienko, Alexander Vladimir (Principal), Percent Contribution: 58%, McFarland, Sherry (Co-Principal), Percent Contribution: 42%. Photocaged immunogenic cell death inducers, National Institutes of Health, Federal, $433,054.00. (Submitted: February 2024, Funded: December 1, 2024 - November 30, 2026). Grant.

Kornienko, Alexander Vladimir (Principal), Percent Contribution: 100%. Photocaged P-gp Inhibitors, National Institutes of Health, Federal, $413,875.00. (Submitted: February 2024, Funded: December 1, 2024 - November 30, 2026). Grant.

Kornienko, Alexander Vladimir (Principal), Percent Contribution: 71%, Hassan, Tayyaba (Co-Principal), Percent Contribution: 29%. Targeted Photoactivated Chemotherapy to Combat Metastatic Ovarian Cancer, National Institutes of Health, Federal, $439,040.00. (Submitted: February 2024, Funded: December 1, 2024 - November 30, 2026). Grant.

Kornienko, Alexander Vladimir, Percent Contribution: 50%, Lane, Michelle (Principal), Percent Contribution: 50%. Targeting colon cancer with tumor site selective prodrugs, CPRIT, State, $1,824,437.00. (Submitted: 2021, Funded: 2022 - 2025). Grant.

Kornienko, Alexander Vladimir (Principal), Percent Contribution: 100%. Three-Component Biomarkable Protein-Drug Conjugation, Welch Foundation, Private / Foundation / Corporate, $240,000.00. (Submitted: 2021, Funded: 2022 - 2025). Grant.

Kornienko, Alexander Vladimir (Principal), Percent Contribution: 55%, La Clair, James (Principal), Percent Contribution: 27%, Rogelj, Snezna (Principal), Percent Contribution: 16%. Enabling New Chemical Reactions by Encoded Bond Discovery, National Institutes of Health, Federal, $393,150.00. (Submitted: October 16, 2022, Funded: April 1, 2023 - March 31, 2025). Grant.

Kornienko, Alexander Vladimir (Principal), Percent Contribution: 75%, La Clair, James (Principal), Percent Contribution: 25%. Fluorescently-linked small molecule inducers of dimerization, National Institutes of Health, Federal, $376,000.00. (Submitted: 2021, Funded: 2022 - 2024). Grant.

Kornienko, Alexander Vladimir (Principal), Percent Contribution: 75%, La Clair, James (Principal), Percent Contribution: 25%. Inverse chemical probe discovery for age-related sarcopenia, National Institutes of Health, Federal, $376,000.00. (Submitted: 2021, Funded: 2021 - 2024). Grant.

Kornienko, Alexander Vladimir (Principal), Percent Contribution: 50%, Lane, Michelle A (Co-Principal), Percent Contribution: 25%, La Clair, Jim (Co-Principal), Percent Contribution: 12.5%, Bonnet, Sylvestre (Co-Principal), Percent Contribution: 12.5%. Photoactivated Chemotherapy for Colorectal Cancer, NIH, Federal, $464,990.00. (Submitted: October 2023, Funded: July 2024 - Present). Grant.

Kornienko, Alexander Vladimir (Principal), Percent Contribution: 100%. Photoactivated Chemotherapy with Clinical Relevance and Enhanced Tumor Specificity, NIH, Federal, $1,790,345.00. (Submitted: September 2023, Funded: July 2024 - Present). Grant.

Kornienko, Alexander Vladimir (Principal), Percent Contribution: 50%, La Clair, Jim (Principal), Percent Contribution: 30%, Rogelj, Snezna (Principal), Percent Contribution: 20%. Enabling New Chemical Reactions by Encoded Bond Discovery, NIH, Federal, $430,098.00. (Submitted: July 2023, Funded: April 2024 - Present). Grant.

Kornienko, Alexander Vladimir (Principal), Percent Contribution: 50%, Lane, Michelle A (Principal), Percent Contribution: 50%. Novel Prodrug Approaches for Colon Cancer, NIH, Federal, $1,825,700.74. (Submitted: June 2023, Funded: April 2024 - Present). Grant.

Kornienko, Alexander Vladimir (Principal), Percent Contribution: 100%. Photocaged Cancer Drugs, CPRIT, Other, $738,986.00. (Submitted: June 2023, Funded: March 2024 - Present). Grant.

Kornienko, Alexander Vladimir (Principal), Percent Contribution: 100%. Dual Targeting Photoactivated Chemotherapy, Pardee Foundation, Other, $147,713.00. (Submitted: August 2023, Funded: January 2024 - Present). Grant.

Kornienko, Alexander Vladimir (Principal), Percent Contribution: 50%, Lane, Michelle A (Co-Principal), Percent Contribution: 25%, La Clair, Jim (Co-Principal), Percent Contribution: 12.5%, Bonett, Sylvestre (Co-Principal), Percent Contribution: 12.5%. Photoactivated Chemotherapy for Colorectal Cancer, NIH, Federal, $451,850.00. (Submitted: February 2023). Grant.

Whitten, Steven T (Co-Principal), Lewis, Karen A (Co-Principal), Libich, David S (Co-Principal), Oyajobi, Babatunde O (Co-Principal), Spooner, Melinda H (Supporting), Betancourt, Tania (Supporting), Carlos-Shanley, Camila (Supporting), Du, Liqin (Supporting), Fuess, Lauren Elizabeth (Supporting), Huertas Pau, Maria del Mar (Supporting), Irvin, Jennifer A (Supporting), Jacobs, Michael Isaac (Supporting), Kornienko, Alexander Vladimir (Supporting), Kerwin, Sean Michael (Supporting), Lewis, Lysle (Supporting), Lu, Yuan (Supporting), McLean, Robert J C (Supporting), Ngu, Hee Hiong (Supporting), Peterson, Ryan Loren (Supporting), Schilter, David (Supporting), Shen, Xiaoxi (Supporting), Wang, Lu (Supporting), Xue, Xiaoyu (Supporting). Texas Doctoral Bridge Program, National Institutes of Health, Federal, $3,158,966.00. (Submitted: October 10, 2022). Grant.

Lewis, Karen A (Principal), Whitten, Steven T (Co-Principal), Kerwin, Sean Michael (Co-Principal), Kornienko, Alexander Vladimir (Co-Principal), Peterson, Ryan Loren (Co-Principal), Xue, Xiaoyu (Co-Principal). Automated Isothermal Calorimetry at Texas State University, Department of Defense, Federal, $320,580.03. (Submitted: August 16, 2021). Grant.

Additional Comments: Research and Education Program for Historically Black Colleges and Universities and Minority-Serving Institutions Equipment/Instrumentation Fiscal Year 2022

Kornienko, Alexander Vladimir (Principal), Percent Contribution: 56%, La Clair, James (Principal), Percent Contribution: 44%. Drug-resistant cancer target discovery via exploration of sphaeropsidin A, Pardee Foundation, Private / Foundation / Corporate, $170,000.00. (Submitted: December 2020). Grant.

Kornienko, Alexander Vladimir (Principal), Percent Contribution: 73%, La Clair, James (Principal), Percent Contribution: 27%. Fluorescently-linked small

molecule inducers of dimerization, National Institutes of Health, Federal, $376,000.00. (Submitted: October 2020). Grant.

Kornienko, Alexander Vladimir (Principal), Percent Contribution: 56%, La Clair, James (Principal), Percent Contribution: 9%, Bonnet, Sylvestre (Principal), Percent Contribution: 24%. Guidelines for the Discovery and Development of Photoactivated Chemotherapy, National Institutes of Health, Federal, $2,783,754.00. (Submitted: June 2020). Grant.

Kornienko, Alexander Vladimir (Principal), Percent Contribution: 100%. Novel Mechanisms to Combat Cancer: Intracellular Targets of a Paraptosis Inducer, Welch Foundation, State, $195,000.00. (Submitted: January 2020). Grant.

Kornienko, Alexander Vladimir (Co-Principal), Percent Contribution: 5%, Romo, Daniel (Principal), Percent Contribution: 95%. Pharmacophore- Directed Retrosynthesis Enabling Synthetic and Mode of Action Studies of Bioactive Natural Products, National Institues of Health, Federal, $1,875,000.00. (Submitted: October 25, 2019). Grant.

Hudnall, Todd W (Principal), Percent Contribution: 50%, Kornienko, Alexander Vladimir (Co-Principal), Percent Contribution: 50%. Photocaged Tubulin-Targeting Anticancer Agents, National Institutes of Health, Federal, $466,030.00. (Submitted: October 25, 2018). Grant.
NIH_PC_PDT_Second Submission-1.pdf

Kornienko, Alexander Vladimir (Principal), Percent Contribution: 70%, Hoffmann, William Darryle (Co-Principal), Percent Contribution: 30%. Informed Natural Product Derivatization, National Institutes of Health, Federal, $411,125.00. (Submitted: October 16, 2018). Grant.

Hudnall, Todd W (Principal), Kornienko, Alexander Vladimir (Co-Principal). Photocaged Tubulin-Targeting Anticancer Agents, National Institutes of Health, Federal, $454,145.00. (Submitted: February 25, 2018). Grant.
NIH_PC_PDT_Final-1.pdf

Kornienko, Alexander Vladimir (Principal), Percent Contribution: 70%, Hoffmann, William Darryle (Co-Principal), Percent Contribution: 30%. Informed Natural Product Derivatization, National Institutes of Health, Federal, $411,125.00. (Submitted: January 20, 2018). Grant.
NIH R21 proposal-1.pdf

Du, Liqin (Principal), Percent Contribution: 10%, Kornienko, Alexander (Other), Percent Contribution: 5%, Houhgton, Peter (Other), Percent Contribution: 1%. Discovery of new differentiation agents for neuroblastoma therapy, National Institute of Health, NCI, R15, withdrawn, Federal, $440,221.00. (Submitted: June 25, 2017). Grant.

092917 Official_Du_Withdrawl letter_R15-1.pdf
Additional Comments: Withdrawn since my R15 submitted in previous cycle was funded in August, 2017.
$300,000 direct/$440,221 total

Betancourt, Tania (Principal), Du, Liqin (Co-Principal), Kornienko, Alexander (Co-Principal), Salcedo Price, Ramona (Co-Principal), Percent Contribution: 0%, Weigum, Shannon (Co-Principal). Acquisition of a Flow Cytometer and Fluorescence Activated Cell Sorter for Multi-Disciplinary Research, National Science Foundation, Major Research Instrumentation, Federal, $234,532.00. (Submitted: January 11, 2017). Grant.

Additional Comments: Not funded

Du, Liqin (Principal), Percent Contribution: 10%, Kornienko, Alexander V (Co-Principal), Percent Contribution: 5%. Identifying new drug candidates for neuroblastoma differentiation therapy, Cancer Prevention & Research Institute of Texas, Individual Investigator Research Award for Cancer in Children and Adolescents, Federal, $741,577.00. (Submitted: May 10, 2016). Grant.

Additional Comments: Proposed funding period: 09/01/2016 to 08/30/2019

$741,577 direct/$780,065 total

Du, Liqin (Principal), Percent Contribution: 10%, Kornienko, Alexander (Co-Principal), Percent Contribution: 5%. Discovery of new differentiation agents for neuroblastoma therapy, National Institute of Health, NCI, R15, Federal, $300,000.00. (Submitted: February 11, 2016). Grant.

Additional Comments: Proposed funding period: 07/01/2016 to 06/30/2019
$300,000 direct, $443,000 total

3. Funded Internal Grants and Contracts:

KORNIENKO, Alexander Vladimir (Principal), Percent Contribution: 100%. Run to R1 Postdoctoral Catalyst program, Texas State University, Institutional (Higher Ed), $100,000.00. (Submitted: April 2023, Funded: May 2023 - August 31, 2025). Sponsored Research.

Kornienko, Alexander Vladimir (Principal), Percent Contribution: 100%. Denise M. Trauth Endowed Presidential Research Professorship, Texas State University, Texas State University, $90,000.00. (Submitted: 2021, Funded: 2021 - 2024). Sponsored Research.

Rhodes, Christopher Peter (Principal), Martin, Benjamin (Co-Principal), Schilter, David (Co-Principal), Kerwin, Sean Michael (Co-Principal), Kornienko,

Alexander Vladimir (Co-Principal), Peterson, Ryan Loren (Co-Principal), Schwartz, Benjamin F (Co-Principal), Dutton, Jessica (Co-Principal), Ikehata, Keisuke (Co-Principal), Hwang, Sangchul Scott (Co-Principal), Ozbakkaloglu, Togay (Co-Principal). Inductively Coupled Plasma-Mass Spectrometry Shared Research and Education Instrument, Texas State University, $259,195.00. (Funded: 2022 - 2023). Grant.

Additional Comments: The grant provided funding for an Inductively Coupled Plasma-Mass Spectrometry (ICP-MS) instrument that will provide new, needed capabilities and serve 11 research groups and ~38 students/year across the university as well as external users.

Kornienko, Alexander Vladimir (Co-Principal), Percent Contribution: 50%, Lane, Michelle A (Co-Principal), Percent Contribution: 50%. Evaluation of 7-deazahypoxanthine derivatives as cancer chemotherapeutic agents, ORSP Research Accelerator, Texas State University, $20,000.00. (Submitted: February 2022, Funded: February 2022 - May 2023). Grant.

Kornienko, Alexander Vladimir, Hudnall, Todd (Principal). A Radical Approach to Photodynamic Therapy for the Non-invasive Treatment of Skin and Colorectal Cancers, Texas State University, $16,000.00. (Submitted: October 2017, Funded: January 1, 2018 - December 31, 2018). Grant.

Kornienko, Alexander Vladimir (Principal). C-H Functionalization Directed by Transformable Nitrogen Heterocycles, TSU Office of Research and Development - REP, Texas State University, $3,386.00. (Funded: January 14, 2014 - March 31, 2015). Grant.

D. Scholarly / Creative Fellowships, Awards, Honors:

Award / Honor Recipient: Holder of Denise M. Trauth Endowed Presidential Research Professorship, Texas State University.
2021 - 2024

Award / Honor Recipient: 2024 Presidential Distinction Award, Texas State University.
August 2024

Award / Honor Recipient: Presidential Award for Scholarly/Creative Activities, President.
January 31, 2016 - August 25, 2016

F. Media Recognition:

Internet, Science Trends. (November 21, 2017).

From Toxin To Tool Adapting The Dark Side Of Chemistry – Science Trends-1.pdf
Additional Comments: From Toxin To Tool: Adapting The Dark Side Of Chemistry
https://sciencetrends.com/toxin-tool-adapting-dark-side-chemistry/

Newspaper, Newsroom at Texas State University. (July 29, 2024).
TXST researchers discover anti-cancer properties in fungal compound __ Newsroom __ Texas State University-1.pdf
Additional Comments: https://news.txst.edu/research-and-innovation/2024/txst-researchers-discover-anti-cancer-properties.html

TV, KVUE. (July 2024).
Unknown-1.jpeg
Additional Comments: https://www.youtube.com/watch?app=desktop&v=JiLsmYcCcjA

Work highlighted on the cover of Journal of Medicinal Chemistry. (April 13, 2017).
jmcmar_v060i007-1.pdf

IV. SERVICE

A. Institutional

1. University:

Member, Pre-Med/pre-Dent Review Panel. (2015 - Present).

Member, University Safety Committee. (2015 - 2018).

Organizer, Texas State Chess Club. (2015 - 2018).

Member, Outstanding Master's Thesis Award Committee. (2017).

Participant, Bobcat Day Volunteer. (2014).

Participant, Commencement Usher. (2014).

Panel Chair and Moderator, Fifth Annual International Research Conference for Graduate Students. (2013).

2. College:

Member, College Review Committee. (2023 - Present).

Member, College of Science Safety Committee. (2015 - 2018).

3. Department/School:

Member, IMBC Faculty Search Committe. (September 2024 - Present).

Member, IMBC Admission Committee. (July 2024 - Present).

Chair, Personnel Committee. (2022 - Present).

Member, Graduate Admission Committee. (2020 - Present).

Member, Departmental Safety Committee. (2018 - Present).

Member, PhD Development Committee. (2015 - 2023).

One of writers, doctoral program proposal to Texas Higher Education Coordinating Board. (June 2023 - August 2023).

Member, Faculty Search Committee. (November 2020 - 2021).

Chair, Seminar organization. (April 1, 2018 - May 5, 2019).

Chair, Departmental Safety Committee. (2012 - 2017).

Member, Deparmental Retreat Planning. (2015).

Organizer, Literature Lunches. (2013 - 2015).

Member, Biochemistry Search Committee. (2014).

Member, Research Metrics Committee. (2014).

Member, Workload Committee. (2014).

Member, Biochemistry Search Committee. (2013).

B. Professional:

Editorial Review Board Member, Marine Drugs. (August 28, 2019 - Present).

Editorial Review Board Member, Current Pharmaceutical Design. (2019 - Present).

Editor, Chemistry of Heterocyclic Compounds. (2014 - Present).

Reviewer / Referee, 30 Journals in Organic and Medicinal Chemistry. (2003 - Present).

Reviewer / Referee, New Mexico Tech, Socorro, NM, United States. (2017).

Additional Comments: Examiner of a tenure package

Reviewer / Referee, National Institutes of Health, Oncology 2 - Translational Clinical (OTC). (2014).

Editor, Special Issue in Chemistry of Heterocyclic Compounds “Creative Design in the Synthesis of Heterocycles". (2013 - 2014).

Reviewer / Referee, Arizona Biomedical Research Commission. (2013).

Reviewer / Referee, American Chemical Society – Petrolium Research Fund. (2011 - 2012).

Reviewer / Referee, European Fund for Research Training in Industry and Agriculture. (2011).

Reviewer / Referee, National Science Foundation, Division of Chemistry. (2011).

Reviewer / Referee, National Institutes of Health, Synthetic and Biological Chemistry B Study Section. (2010).

Reviewer / Referee, Alexander von Humboldt Foundation. (2008).

D. Organization Memberships:

American Association for Cancer Research. (September 2023 - Present).

American Chemical Society. (1995 - Present).