# Andrea L. Kasinski

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https://www.ncbi.nlm.nih.gov/myncbi/browse/collection/46436535/?sort=date&direction=

## Education

Ph.D. [2009] Emory University. Area: Genetics and Molecular Biology. August 2009

B.A. [1996] State University of New York College at Buffalo. Major, Mathematics & Biology

## **Research and Professional Appointments**

#### **Purdue University**

2022 – pres.	Program Leader, Purdue Center for Cancer Research
2021 – pres.	Chair of Graduate Program in Biological Sciences, Purdue University
2020 – pres.	Associate Professor with Tenure, Biological Sciences, Purdue University
2013 - 2020	William and Patty Miller Assistant Professor, Biological Sciences, Purdue University
Yale University	
2009 - 2013	Postdoctoral Fellow, New Haven CT, (Dr. Frank J. Slack)
Sacred Heart University	
2010 - 2013	Adjunct Lecturer, Fairfield CT
Post University	
2010 - 2010	Adjunct Lecturer, Waterbury CT
Emory University	
2003 - 2009	Ph.D. Candidate, Atlanta GA, (Dr. Haian Fu)

## Awards and Honors

2023	American Association for Cancer Research, Plenary Speaker invitation for annual meeting
2022	Bio Crossroads, 23 PAIR Fellow – Recognizing the next generation of Indiana's life sciences talent
2022	Recipient of Department of Defense, Idea Development Award
2018	Purdue University, Seed for Success – for obtaining external sponsored award of \$1 million or more, NIH-R01CA205420
2018	Purdue University, Seed for Success – for obtaining external sponsored award of \$1 million or more, NIH-R01CA226259
2018	American Cancer Society, Research Scholar Awardee, gratefully declined

2018	Purdue University, Department of Biological Sciences' Team Award
2015	Purdue University – Favorite Faculty Award Nominee
2013	Aspen Cancer Conference – Benjamin F. Trump Award for Scientific Research
	Excellence
2012	Yale University, Center for RNA Science and Medicine, Poster Winner for Scientific
	Content
2012	American Association of Cancer Research, Women in Cancer Research Scholar
2011	American Cancer Society Postdoctoral Fellowship
2010	National Research Service Award Postdoctoral Fellowship (F32)
2008	National Institutes of Health, Graduate Student Research Festival Fellow 2018
2007	Emory University Drug Development and Pharmacogenomics Academy Predoctoral
	Fellowship
2007	Emory University Fund for International Graduate Research Fellowship

## Society and Professional Memberships – Current and Past

2019 – pres.	American Society of Gene and Cell Therapy
2018 – pres.	Oligonucleotide Therapeutics Society
2014 – pres.	RNA society
2014 – pres.	American Society for the Advancement of Science
2014 – pres.	Purdue Center for Cancer Research
2014 – pres.	Purdue Institute for Drug Discovery
2011 – pres.	American Association of Cancer Research
2011 – pres.	American Association of Cancer Research, Women in Cancer Research
2010 - 2013	New York Academy of Sciences

## Scientific Community Service

Dr. Kasinski serves as referee for many journals in the field of nucleic acids, tumorigenicity, and pharmacogenomics. A partial list of journals includes *EMBO Molecular Medicine*, *Nature Communications*, *Oncogene*, *Nucleic Acids Research*, *Cancer Prevention Research*, *Cancer Research*, *Clinical Cancer Research*, *Scientific Reports*, *Cancer Discovery*, *Chromosoma*, *Cancers*, *Molecular Therapy*, *Molecular Therapy* – *Nucleic Acids*, *Molecular Cell*, *Biochemistry and Cell Biology*, *Tumor Biology*, *Molecular Therapy*, *Bio-protocols*, *Thompson Reuters* - *Drug Profiles*, *Toxicological Sciences*, *BMC Cancer* and *Molecular Pharmacology*.

## **Patent Disclosures**

Provisional submitted for the following:

- 1. Vehicle free delivery of miRNAs: 2016-KASI-67538
- 2. Ligand ionophore conjugates: 2017-LOW-67710
- 3. Ligand-targeted delivery for prostate cancer therapy. 2020-KASI-69049
- 4. Folate-fully-modified-miR-34a as an anti-cancer agent

Full application:

1. Ligand ionophore conjugates: 2016-KASI-67532-02, PCT/US2017/061997, currently licensed to Endocyte

# Additional Professional Activities

#### Academia

2022 – pres.	Program Leader, Purdue Institute for Cancer Research
2021 – pres.	Chair of Graduate Program in Biological Sciences
2021 – pres.	Head of Cancer Research Day Organizing Committee, Purdue Institute for Cancer
Research	
2020 – pres.	Member of Purdue Institute for Cancer Research Steering Committee
2015 – pres.	Co-director Life Sciences Postdoc Initiative, Purdue University
2008 - 2009	Teaching Assistant, Emory University
2000 - 2009	Research Technician, Emory University

## **Conference Organization**

2021	Chair, Purdue Institute for Cancer Research Retreat
2016	Session Chair, American Association of Cancer Research, New Orleans, LA
2014	Chair, miRNA World, Boston MA

## **Journal Editor**

2020 – pres.	Associate Editor, Molecular Carcinogenesis
2013 – pres.	Eminent Editor, Journal of Cytology and Molecular Biology
2011 - 2012	Guest Editor, DNA and Cell Biology, special "Epigenetics" issue

#### Grant Review/Study Sections (total proposals reviewed since arriving at Purdue: 107)

- 2014/01 Clinical and Translational Science Institute of Indiana (5 proposals)
- 2014/01 Medical Research Council of UK (1 proposal)
- 2014/06 Austrian Academy of Sciences (1 proposal)
- 2014/08 Morehouse Tuskegee University/UAB grant review (2 proposals)
- 2015/04 NCI R03/R21 study section, ZCA1 SRB-C M3 (9 proposals)
- 2015/05 NCI R03/R21 study section, ZCA1 SRB-C O1 (9 proposals)
- 2015/11 NCI R03/R21 study section, ZCA1 SRB-1 J1 (7 proposals)
- 2015/08 Worldwide Cancer Research gran review (1 proposal)
- 2016/04 NCI R03/R21 study section, ZCA1 SRB-C M1 (9 proposals)
- 2016/11 NIH/GM/SCORE, study section, ZGM1 RCB-6 SC (6 proposals)
- 2016/12 Florida Department of Health Bankhead-Coley Cancer Research Program, (2 proposals)
- 2017/02 Clinical and Translational Science Institute of Indiana, (5 proposals)
- 2017/05 PCCR American Cancer Society, (1 proposal)
- 2017/06 NCI R03/R21 study section, ZCA1 SRB-5 O1 (6 proposals)
- 2017/12 Florida Department of Health Research Program (1 proposal)
- 2018/05 Purdue University, Robbers Awards (4 proposals)
- 2018/05 Florida Department of Health Research Program (1 proposal)
- 2018/06 NCI R21/R03 FOA study section (8 proposals)
- 2018/06 Purdue Center for Drug Discovery (18 proposals)
- 2018/12 Florida Department of Health Research Program (1 proposal)

2019/02	NIH P01 ZCA1 RPRB-F (M1) (request to serve as the primary reviewer of 1 P01, reviewer of 3 projects, and 2 cores, only Assistant Professor on panel)
2019/12	Florida Department of Health Research Program (3 proposals)
2020/02	American Cancer Society (1 proposal)
2020/02	NIH P01 ZCA1 RPRB-L (M1) (request to serve as the primary reviewer of 1 P01, 2
	projects, and 1 core)
2020/04	Pennsylvania Department of Health (1 proposal)
2020/06	NIH SBIR/STTR Cancer Biotherapeutics Development (9 proposals)
2020/11	Florida Department of Health Research Program (2 proposals)
2021/06	NIH SBIR/STTR Cancer Biotherapeutics Development (9 proposals)
2021/11	Florida Department of Health Research Program (2 proposals)
2022/03	NIH SBIR/STTR Cancer Biotherapeutics Development
2023/02	NIH – Nucleic Acid Therapeutics Delivery (NATD) (6 proposals)

#### **Courses Taught at Purdue**

2014, 2015	Biology Honors Course (BIOL 197) – Guest lecture
2015, 2016	Signal Transduction (BCHM 610) – Guest Lecture
2015, 2016	Regulation of Gene Expression (BCHM) – Guest lecture
2015 - 2017	Undergraduate Research Day (BIOL293) – Guest lecture
2015 - 2016	Current Topics in Noncoding RNA (BIOL 495) – 15 lectures/semester
2015 - 2017	Epigenetics in Human Disease (BIOL 595) – 30 lectures/semester
2017 – pres.	Cell Structure and Function (BIOL 231) – 41 lectures/semester

## **Publication Information**

#### **Original Research Peer Reviewed Journal Articles**

- Nellis, M.M., Doering, C.B., Kasinski, A. and Danner, D.J. (2002) Insulin increases branched chain α-ketoacid dehydrogenase kinase expression in Clone 9 rat cells. Am J. Physiol. 238: E853-E860.
- Nellis, M.M., Kasinski, A., Carlson, M., Allen, R., Schaefer, A.M., Schwartz, E.M., Danner, D.J. (2003) *Relationship of causative genetic mutations in maple syrup urine disease with their clinical expression*. Mol. Genet. Metab. 80: 189-95
- 3. Kasinski, A., Doering, C.B. and Danner, D.J. (2004) *Leucine toxicity in a neuronal cell model with inhibited branched chain amino acid catabolism.* Molecular Brain Research 122: 180-7.
- 4. Kasinski, A.L., Du, Y., Thomas, S., Zhao, J., Sun, S.Y., Khuri, F.R., Wang, C.Y., Shoji, M., Sun, A., Snyder, J., Liotta, D., Fu, H. (2008) *Inhibition of IKK-NF-kB signaling pathway by EF24, a novel monoketone analogue of curcumin.* Molecular Pharmacology Sep; 74(3):654-61
- 5. Kasinski, A.L., Slack, F.J. (2012) *miRNA-34 prevents cancer initiation and progression in a therapeutically resistant Kras and p53-induced mouse model of lung adenocarcinoma*. Cancer Research, Sept; 72, 5576-5587

*In November of 2012, Commentary and News Report on Cancer Research publication from Yale Newsroom* <u>https://tinyurl.com/ycf37u7n</u>.

- Puckett, M.C., Goldman, E.H., Cockrell, L.M., Huang, B., Kasinki, A.L., Du, Y., Wang, C., Lin, A., Ichijo, H., Khuri, F.R., and Fu, H. (2013) *Integration of the Apoptosis signal-regulating kinase 1- mediated stress signaling with the Akt/PKB-IkB kinase cascade*. Molecular and Cellular Biology, Jun;33(11):2252-9
- 7. Kasinski, A.L., Slack, F.J. (2013) *Generation of mouse lung epithelial cells*. Bio-Protocols. August 2013 \* corresponding author. Featured protocol for both Cancer and Cell Biology.
- 8. Kasinski, A.L., Dong, X., Khuri, F.R., Boss, J., Fu, H. (2014) *Transcriptional regulation of YWHAZ, the gene encoding 14-3-3 zeta* PLoS-ONE 9(4) e93480
- Kasinski, A.L., Kelner, K., Stahlhut, C., Orellana, E.A., Zhao, J., Shimer, E., Dysart, S., Bader, A.G., Slack, F.J. (2015) *A combinatorial microRNA therapeutic approach to suppressing Kras;p53 mutant non-small cell lung cancer*. Oncogene 2015 Jul;34(27):3547-55

*In September of 2014,* Commentary and News Report on Oncogene publication from Beth Israel Deaconess Medical Center, Harvard University was published by >5 independent outlets. Additional press releases and reviews covering this work increased the altmetric score of this publication to 56.

Highlighted in Eureka Alter: AAAS: <u>https://tinyurl.com/y746wqd9</u> Highlighted in Science Daily: <u>https://tinyurl.com/y92ckh9s</u> Highlighted in RT Magazine: <u>https://tinyurl.com/y9c9peq2</u> Highlighted in Medical Express: <u>https://tinyurl.com/ybppjs2j</u> Highlighted in MDLinx: <u>https://tinyurl.com/y8oldxkb</u> And others

- Orellana, E.A., and Kasinski A.L. (2016) Sulforhodamine B (SRB) Assay. Bio-protocol Col 6, Iss 21 11/5/2016
- Gilbert-Ross, M., Konen, j., Koo, J., Shupe, J., Robinson, B., Wiles, W., Huang, C., Martin, D., Behera, M., Smith, G., Hill, C., Rossi, M., Sica, G., Rupji, M., Chen, Z., Kowalski, J., Kasinski, A.L., Samalingah, S., Fu, H., Khuri, F., Zhou, W., Marcus, A. (2017) *Targeting adhesion signaling in KRAS, LKB1 mutant lung adenocarcinoma*. Journal of Clinical Investigation Insight. 2017 Mar 9;2(5)e90487
- Orellana, E.A., Tenneti, S., Rangasamy, R., Lyle, L.T., Low, P.S., Kasinski, A.L. (2017) FolamiRs: Ligand-targeted, vehicle-free microRNA replacement therapy. Science Translational Medicine. 2017 Aug 2;9(401)

In August of 2017, Commentary and News Report on Science Translational Medicine publication from Purdue Newsroom was published by 4 independent outlets. Additional

press releases and reviews covering this work increased the altmetric score of this publication to 50.

Highlighted in Purdue News: <u>https://tinyurl.com/ybcjuj9t</u> Highlighted by Oligonucleotide Therapeutics Society: <u>https://tinyurl.com/yc3m9een</u> Highlighted in Genetic Eng. and Biotechnology News: <u>https://tinyurl.com/ybqjyx26</u> Highlighted in Medical Express: <u>https://tinyurl.com/ydbt86n7</u> Reviewed in a local magazine in Ecuador: <u>https://tinyurl.com/ybc3gyou</u> Reviewed in Oncotarget: <u>https://tinyurl.com/ybr58kn3</u> And others

 Zhou, W., Pal, A.S., Hus, A.Y., Gurol T., Zhu, X., Wirbisky-Hershberger, S.E., Freeman, J.L., Kasinski, A.L., Deng, Q. (2018) *MicroRNA-223 suppresses the canonical NF-kB pathway in basal keratinocytes to dampen neutrophilic inflammation*. Cell Reports 2018 Feb 13;22(7):1810-1823

*In February of 2018,* Commentary and News Report on Cell Reports publication from Purdue Newsroom was published by 2 independent outlets.

*Highlighted in Purdue News: <u>https://tinyurl.com/yc8yy5nf</u> Highlighted in Medical Express: <u>https://tinyurl.com/y86shf5z</u>* 

- 14. Rangasamy, L., Chelvam, V., Kanduluru, A.K., Srinivasarao, M., Bandara, A.N., You, F., Orellana, E., Kasinski, A.L., Low, P.S. (2018) New mechanism for release of endosomal contents: osmotic lysis via nigericin-mediated K+/H+ exchange. Bioconjugate Chemistry 2018 Feb 15
- Orellana, E.A., Abdelaal, A.H., Rangasamy, R., Tenneti, S., Myoung, S., Low, P.S., Kasinski, A.L. (2019) Enhancing microRNA activity through increased endosomal release mediated by nigericin. Molecular Therapy: Nucleic Acids, Vol 16, 505-518
- Orellana E.A., Li, C., Lisevick, A., and Kasinski, A.L. (2019) Identification and validation of microRNAs that synergize with miR-34a – a basis for combinatorial microRNA therapeutics. Cell Cycle, 2019 Aug;18(15):1798-1811
- 17. Pal, A.S., Bains, M., Agredo, A., and **Kasinski A.L. (2020)** *Identification of microRNAs that promote erlotinib resistance in non-small cell lung cancer*. Biochemical Pharmacology 2020 Jul 16:114154
- Elshafie, N., do Nascimento, N., Lichti, N., Kasinski A.L., Childress, M., Santos, A. (2021) *MicroRNA biomarkers in canine diffuse large B-cell lymphoma*. Veterinary Pathology 2021 Jan;58(1):34-41
- 19. Hasan, H., Sohal, I.S., Soto-Vargas, Z., Byappanhalli, A.M., Humphrey, S.E., Kubo, H., Kitdumrongthum, S., Copeland, S., Tian, F., Chairoungdua, A., and Kasinski, A.L. (2022)

*Extracellular vesicles released by non-small cell lung cancer cells drives invasion and permeability in non-tumorigenic lung epithelial cell.* Scientific Reports 2022 12, 972 (2022)

20. Pal, A.S., Agredo, A., Lanman, N.A., Son, J., Sohal, I.S., Bains, M., Li, C., Clingerman, J., Gates, K., Kasinski, A.L. (2022) Loss of KMT5C promotes EGFR inhibitor resistance in NSCLC via LINC01510-mediated upregulation of MET. Cancer Research Apr15;82(8):1534-1547

In April of 2022, Commentary and News Report on Cancer Research publication from Purdue Newsroom was published by multiple news outlets. Additional ten press releases and reviews covering this work increased the altmetric score of this publication to 93, which falls into the top 5% of all output scores by Altmetric and is within the top 96 percentile of same age articles from Cancer Research.

Highlighted in Purdue News: <u>https://tinyurl.com/2p8dn9sm</u>

- 21. Pal, A.S., Agredo, A., Kasinski, A.L. (2022) *In-cell western protocol for semi-high throughput screening of single clones*. BioProtocol, vol 12, iss 16. Doi: 10.21769/BioProtoc.4489
- 22. Abdelaal, A.M., Sohal, I.S., Iyers, S., Sudarshan, K., Lanman, N.A., Kothandaraman, H., Low, P.S., **Kasinski, A.L. (2023)** *A first-in-class fully modified version of miR-34a with outstanding stability, activity, and anti-tumor efficacy.* Cancer Research (under Review)

#### **Preprint Articles**

- 1. Orellana, E.A., Rangasamy, L., Tenneti, S., Abdelaal, A.M., Low, P.S., **Kasinski, A.L. (2018)** *Enhancing microRNA activity through increased endosomal release mediated by nigericin.* July 2018 bioRxiv doi: https//doi.org/10.1101/367672
- Pal, A.S., Agredo, A.M., Lanman, N.A., Clingerman, J., Gates, K., Kasinski, A.L. (2020) Loss of SUV420H2 promotes EGFR inhibitor resistance in NSCLC through upregulation of MET via LINC01510. March 2020 bioRxiv doi: https://doi.org/10.1101/2020.03.17.995951

#### **Invited Reviews**

- 1. Kasinski, A.L., Slack, F.J. (2010) *Potential microRNA therapies targeting Ras, NF-kB and p53 signaling.* Current Opinion in Molecular Therapeutics, Apr; 12(2):147-57
- 2. Kasinski, A.L., Fu, H. (2011) *14-3-3 zeta*. UCSD-Nature Molecule Pages. (doi:10.1038/mp.a000060.01)
- 3. Kim, M., Kasinski, A.L., Slack, F.J. (2011) *MicroRNA therapeutics in pre-clinical cancer models*. Lancet Oncology, Apr;12(4):319-321
- 4. Kasinski, A.L., Slack, F.J. (2011) Therapeutic microRNAs en route to the clinic: progress in

*validating and targeting miRNAs for cancer therapy*. Nature Reviews Cancer, Nov 24; 11(12):849-64

- 5. Kasinski, A.L., Slack, F.J. (2012) Arresting the culprit: targeted antagomir delivery to sequester oncogenic miR-221 in HCC. Molecular Therapy Nucleic Acids, March; 1(3):12
- 6. **\*Kasinski, A.L., \***Slack, F.J. (**2013**) *Small RNAs deliver a blow to ovarian cancer*. Cancer Discovery, November 2013 3;1220 \* co-corresponding authors
- 7. Adams, B.A., **\*Kasinski, A.L.**, Slack, F.J. (**2014**) *Aberrant regulation and function of microRNAs in cancer*. Current Biology Vol24;16:R762-R776 \*co-first authors
- Zeiger, Z., Gollapudi, B., Aardema, M., Auerbach, S., Boverhof, D., Custer, L., Dedon, P., Honma, M., Ishida, S., Kasinski, A.L., Kim, J.H., Manjanatha, M., Marlowe, J., Pfuhler, S., Pogribny, I., Slikker, W., Stankowski, L.F., Tanir, J.Y., Tice, R., van Benthem, J., White, P., Witt, K.L., Thybaud, V. (2015) *Opportunities to integrate new approaches in genetic toxicology: An ILSI-HEIS workshop report.* Environmental Molecular Mutagenesis 2015 Apr,56(3):277-85
- 9. Humphrey, S. and Kasinski, A.L. (2015) *RNA guided CRISPR-Cas Technologies for Genome Scale Investigation of Disease Processes. Journal of Hematology and Oncology.* 2015 April 2;8(1):31.
- 10. Orellana E.A., and Kasinski, A.L. (2015) *MicroRNAs in cancer: A historical perspective on the path from discovery to therapy*. Cancers 7(3), 1388-1405
- 11. Pal, A.S., and Kasinski, A.L. (2017) Animal models to study microRNA function. Advances in Cancer Research 135:53-118
- 12. Orellana, E.A., Kasinski, A.L. (2017) *No vehicle, no problem.* Oncotarget. 2017 Oct27;8(57):96470-96471
- 13. Kasinski, A.L. (2019) Combatting PDAC with two tumor-targeting small RNAs. Oncotarget 2019 Oct 15;10(57):5892-5893 http://doi.org/10.1080/15384101.2019.1634956
- 14. Li, C., and **Kasinski, A.L. (2020)** *In vivo cancer-based functional genomics*. Trends in Cancer 2020, Aug 19:S2405-8033(20)31212-0
- 23. Li, W., Wang, Y., Liu, R., Kasinski, A.L., Shen, H., Slack, F.J., and Tang, D.G. (2021) MicroRNA-34a (miR-34a): Potent Tumor Suppressor, Cancer Stem Cell Inhibitor and Potential Anti-Cancer Therapeutic, Frontiers in Cell and Developmental Biology, 9:640587.
- 24. Abdelaal, A.M., and **Kasinski, A.L. (2021)** Ligand-mediated delivery of RNAi-based therapeutics for the treatment of oncological disease. Nucleic Acid Research, Cancer, Jul 20;3(3):zcab030

- 25. Sohal, I.S. and Kasinski, A.L. (2022) *Extracellular vesicle biogenesis in cancer*. Frontiers in Endocrinology. (Under Review)
- 26. Agredo A.M. and Kasinski, A.L. (2022) *Histone 4 lysine 20 trimethylation: A key epigenetic regulator in chromatin structure and disease* (Under Review)

#### Peer Reviewed Books and Chapters

- 1. Danner, D.J., Muller, E.A., **Kasinski, A. (2003)** *The complexity of single gene disorders: Lessons from maple syrup urine disease and thiamin responsiveness. Thiamine: catalytic mechanisms and role in normal and disease states.* Ed by M.S. Patel and F. Jordan, Academic Press (2004).
- Park, H.R., Cockrell, L.M., Du, Y., Kasinski, A., Havel, J., Zhao, J., Reyes-Turcu, F., Wilkinson, K., Fu, H. (2008) *Methods for Protein-Protein Interactions*, Molecular Biomethods Handbook 2nd Edition.
- 3. Myoung, S., and **Kasinski, A.L. (2019)** *MicroRNAs in Diseases and Disorders Emerging Therapeutic Targets. Chapter 22: Strategies for safe and targeted delivery of microRNA therapeutics.* Royal Society of Chemistry.

# Abstracts submitted by Dr. Kasinski since arriving at Purdue (International underlined, excluding abstracts internally at Purdue)

- 1. **Kasinski, A.L.,** Bader, A.G., and Slack, F.J. *miR-34 and let-7 prevent endogenous lung tumor progression in the therapeutically resistant Kras*<sup>G12D/+</sup>;*Trp53 mouse model.* International RNA Society Annual Meeting, Quebec, Canada. June 2014
- 2. Kasinski, A.L. *A combinatorial microRNA therapeutics approach to eradicating NSCLC*. 3<sup>rd</sup> Annual Summit on Thoracic Malignancies and Head and Neck Cancer, Puerto Rico December 2015 (oral presentation)
- 3. Kasinski, A.L. *A combinatorial microRNA therapeutics approach to suppressing cancer growth.* Experimental Biology, ASPET, San Diego, CA, April 2016 (oral presentation)
- 4. Kasinski, A.L. *A macro role for microRNAs: Enhancing the clinical utility of microRNAs.* American Association for Cancer Research, New Orleans, LA, April 2016 (oral presentation)
- 5. Kasinski, A.L. *FolamiRs: Vehicle-free delivery of therapeutic microRNAs.* 6<sup>th</sup> International Symposium on Folate Receptors and Transporters, Breckenridge CO, September 2016 (oral presentation)
- 6. Kasinski, A.L., *Ligand-targeted*, *vehicle-free microRNA replacement*. The 22nd Annual Meeting of the RNA Society, Prague, Czech Republic, May 2017 (oral presentation)
- 7. Kasinski, A.L., *Ligand-targeted, vehicle-free microRNA replacement*. <u>The Long and Short of Non-coding RNA, Crete, Greece</u>, June 2017 (oral presentation)
- 8. Kasinski, A.L., *Vehicle-free delivery of therapeutic RNAs*. RNA Therapeutics: Basepairs to Bedside, University of Massachusetts, Worster, MA, June 2018 (oral presentation)
- 9. Kasinski, A.L., *Ligand-mediated, vehicle-free delivery of small RNAs*. Oligonucleotide Therapeutics Society, Seattle, Washington, October 2018 (oral presentation)

## **Invited Lectures**

#### 1. National and International Meetings (22, international locations underlined)

- 8<sup>th</sup> Annual miRNA in Human Disease & Development, Cambridge Healthtech, March 2012
- 2. ILSI Health and Environmental Science Institute, Silver Springs MD, April 2012
- 3. The 4<sup>th</sup> Japanese Assoc. for RNAi International Symposium, <u>Hiroshima, Japan</u>, August 2012
- 4. Aspen Cancer Conference, Aspen, Co, July 2013
- 5. MiRNA World 2014, Boston, MA, October 2014
- 6. 2nd Annual Summit on Practical and Emerging Approaches to Lung Cancer, Dallas TX, December 2014
- 7. Association for Research in Otolaryngology, Baltimore, MD, February 2015
- 8. MicroRNAs as Biomarkers and Diagnostics, Cambridge, MA, March 2015
- 9. 3rd Annual Summit on Thoracic Malignancies and Head & Neck Cancers, San Juan, Puerto Rico, Dec 2015
- 10. ASPET, Experimental Biology, San Diego, CA, April 2016
- 11. American Association of Cancer Research, New Orleans, LA, April 2016
- 12. 6th International Folate Receptors Symposium, Breckenridge, CO, September 2016
- 13. RNA as a Guide, Barbados, April 2017
- 14. Non-coding RNA Symposium, University of Alabama, Birmingham, November 2017
- 15. The RNA Summit, Boston, MA, November 2017
- 16. FASEB SRC: Post-transcriptional control of gene expression, Scottsdale AZ, June 2018
- 17. 5<sup>th</sup> Annual International Conference on Drug Discovery, Development and Lead Optimization, Boston MA, November 2019
- mRNA Untranslated Regions in Gene Regulation, Development, and Disease, <u>Barbados</u>, January 2020
- 19. Current Innovations & the Future of Therapeutic Development. Vellore Institute of Technology, <u>India</u>, June 2020
- 20. microRNA symposium, University of Illinois at Chicago, September 2021
- 21. RNA-mediated silencing, Barbados, January 2022, Canceled due to Covid
- 22. American Association for Cancer Research (AACR), Plenary Talk April 2023, Orlando Florida
- 23. RNA-mediated silencing, Barbados, April 2023
- 24. Folate Receptor Meeting, New York, October 2023

#### 2. Regional Meetings and Workshops (11)

- 1. NIH Lung SPORE Workshop, National Cancer Institute, Rockville, MD, July 2013
- 2. Purdue Center's Directory Advisory Board luncheon at the Cincinnati Woman's Club, Cincinnati, OH, September 12, 2016
- 3. Science on Tap at Lafayette Brew Pub, May 2017
- 4. Purdue Center for Cancer Research, CIS series, West Lafayette IN, March 2017
- 5. Keynote, NSF-Funded Science Outreach, Carnegie Museum, Crawfordsville, IN, April 2018
- 6. Midwest Chromatin and Epigenetics Meeting, Purdue University, West Lafayette, IN, June 2018

- 7. Biden Cancer Summit, Purdue 150th Anniversary Celebration, West Lafayette, IN, September 2018
- 8. Purdue Center for Cancer Research, CIS series, West Lafayette IN, February 2019
- 9. Keynote, Purdue Relay for Life's Hope Gala, West Lafayette, IN, February 2019
- 10. Keynote, Bindley Biosciences Graduate Research Symposium, West Lafayette, IN, April 2020 (canceled due to Coronavirus)
- 11. Women in Science Program, Purdue University, West Lafayette, IN, November 2020

# **3.** Universities and Other Institutions (18, not including multiple talks at Purdue, international locations underlined)

- 1. Thoracic Oncology Board, Emory University, Atlanta GA, May 2012
- 2. Department of Biology, Purdue University, West Lafayette IN, December 2012
- 3. Departments of Hematology and Medical Oncology, and Radiation Oncology, Emory University, Atlanta, Ga, March 2013
- 4. Department of Clinical Cancer Prevention, MD Anderson Cancer Center, Houston Tx, March 2013
- 5. Department of Molecular Pathology, MD Anderson Cancer Center, Houston Tx, April 2013
- 6. Purdue University, Calumet Campus, Department of Biological Sciences, Hammond, IN, August 2014
- 7. Indiana University, Department of Biochemistry and Molecular Biology, March 2015
- 8. Universidad de Antioquia, Medellin, Columbia, November 2015
- 9. Indiana University Purdue University Indianapolis (IUPUI), Department of Biology, Indianapolis, January 2017
- 10. Roswell Park Cancer Institute, The University of Buffalo, July 2017
- 11. University of Montreal, February 2018
- 12. Keynote Speaker, 19th Annual Fellow's Colloquium, National Cancer Institute, Bethesda, MA, February 2019
- 13. Mahidol University, Bangkok Thailand, March 2019
- 14. University of North Carolina Chapel Hill, Keynote Speaker, December 2019
- 15. Roswell Park Cancer Institute, The University of Buffalo, January 2020
- 16. Manchester University, November 2020
- 17. University of Illinois Urbana Champaign, Department of Cell and Developmental Biology, March 2022
- 18. Harvard Medical School, Initiative for RNA medicine, October 2022

## 4. Invited Webinar Lectures (4)

- 1. The Scientist, *The success and tribulations of using non-coding RNAs as therapeutics*. July 2015
- 2. The Scientist, FolamiRs: Vehicle-free delivery of therapeutic microRNAs. October 2016
- 3. Oligonucleotide Therapeutics Society. Design of microRNA therapeutics. March 2019
- 4. The Scientist, *To the tumor and beyond: a tale of a holistic microRNA delivery vehicle*, February 2022

## Funding (total to date - \$5,409,868, not including trainee funding)

#### **On-going**

Lung Cancer Research Program, Idea Award **(\$530,488)** Department of Defense (PI: Kasinski) 09/30/22 – 08/31/24 "Ligand-Mediated Detection and Treatment of Metastatic Lung Cancer, Including Tumors Localized in The Central Nervous System"

#### R01 CA205420 (\$1,757,221)

NIH (PI: Kasinski) 09/01/17 – 08/31/23 "Enhancing miRNA therapeutics through combinatorial targeting and vehicle-free delivery" The overall goal of the project is to identify miRNAs that synergize with miR-34a and to evaluate their efficacy in vivo through a novel ligand-mediated delivery platform based on the folate ligand.

#### R01 CA226259 (\$1,908,079)

NIH (PI: Kasinski) 04/01/18 – 03/31/24

"Ligand-mediated delivery of small RNAs"

The overall goal of the project is to generate and test folate-nigericin-miRNA conjugates to facilitate endosomal release of miRNAs.

#### Notable external funding of trainees in the Kasinski Laboratory

NIH-F31 (~\$150,000)(PI: graduate student Zuliada Soto)08/01/21 - 07/31/23"Mechanisms of secretion an uptake of small extracellular vesicles in non-small cell lung cancer"

Department of Defense **(\$465,000**) (PI: postdoc Ikjot Shoal) "Ligand-targeted miRNA delivery for prostate cancer therapy" 04/01/21 - 03/31/23