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Te as Tech Uni ersi Heal h Sciences Cen er
Depar men of Cell Biolog and Biochemis r
3601 4th S S op 6540
L bbock, TX 79430
Phone: (806) 743-1282
Fa : (806) 743-2990
E-mail: ang om.d.bh ia@ hsc.ed

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2004-2008 **2+) (.#(06-6 9.#"9>(1 6 8.5.#6/(**
Ad iser: Dr. De endra S ar p
Indian Ve erinar Research Ins i e, l a nagar, U ar Pradesh, India

2001-2004 **1 0<5/(1 " : -6 9? : (.#(@A.#.5"A(06-6 9.#"9>(1 6 8.5.#6(**
Ad iser: Dr. D.S. Tir mala Rao
Achar a N.G. Ranga Agric l ral Uni ersi , Andhra Pradesh, India

1996-2001 **) 0 1 /(06-6 9.#"9>(<5.6#56(**
Mara h ada Agric l ral Uni ersi , Parbhani, Maharash ra, India

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Febr ar 2023 **7 : : &5."-6(2 9&4 6 : : &9(**(Ten red), Te as Tech Uni ersi Heal h Sciences Cen er, L bbock, TX 79430

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2022-2023 **7 : : &5."-6(2 9&4 6 : : &9(**(Ten re Track), Te as Tech Uni ersi Heal h Sciences Cen er, L bbock, TX 79430

2017-2022 **7 : : . : -"#-(2 9&4 6 : : &9(**

2009-2011 **2&:-8&5-&9"A(C6AA&D(** i h Dr. Rajgopal Go indarajan, Uni ersi of Georgia, School of Pharmac , A hens, GA 30602

2008-2009 **B6:6"95+(7::.:-"#-(** i h Dr. De endra S ar p, Cen ral Zoo A hori , Minis r of En ironmen , Indian Ve erinar Research Ins i e, I a nagar, U ar Pradesh, India

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2021-presen Member of he TTUHSC Cancer Cen er, Te as Tech Uni ersi Heal h Sciences Cen er, School of Medicine, L bbock, TX

2020-presen Member of he Biochemis r , Cell lar, and Molec lar Biolog program, Grad a e School of Biomedical Sciences, Te as Tech Uni ersi Heal h Sciences Cen er,
L bbock, TX

2019

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"	5372	"	"	"
	GBTC 5340	Biolog of Cancer	The Biolog of Pancrea ic Cancer	2020-2021
	GBTC 5020	Bio echnolog Lab Me hods	Transpor er Assa	2020-presen

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Bradle Schniers (2018-2022): Bradle grad a ed i h a Ph.D. in Biochemis r and Cell and Molec lar Biolog (BCMB), TTUHSC in Ma 2022. He is firs a hor on o original papers p blished in *Biochemical Journal* and is also a co-a hor in an original paper p blished in *Asian Journal of Pharmaceutical Sciences*. He presen ed his ork a he AACR Ann al mee ing 2019, in A lan a GA as ell as a he TTUHSC Ann al S den Research Week 2019, 2020, and 2021. A he Ann al S den Research Week 2019, his abs rac as selec ed for he *Student Select Talk* and on he hird pri e for his pos er presen a ion. He as also a arded he

He also on he firs pri e in he Bioss AB s grea es s ain con es for IHC and is c rren l orking as a Vaccine Research Scien is a Bimeda Biologicals a San Angelo, Te as.

Ksenija Korac (2019-2022): Ksenija grad a ed i h a Ph.D. in Biochemis r and Cell and Molec lar Biolog (BCMB), TTUHSC in Ma 2023. In her research, Ksenija foc sed on SLC6A14, an amino acid ranspor er and indoleamine dio genase 1 (IDO1), a r p ophan ca aboli ing en me as dr g arge s for pancrea ic cancer. She finds ha Carbidopa, an FDA-appro ed dr g for Parkinson s disease, inhibi s bo h SLC6A14 and IDO1 a he ranscrip ional le el in pancrea ic cancer cells leading o a en a ion of mor gro h in enograf mo se models. She presen ed her ork a he TTUHSC Ann al

Mosharaf Mahm d-S ed: Mosharaf is a 3rd ear PhD grad a e s den in m labora or . He s ar ed ro a ing hro gh m lab in Jan ar of 2022 and officiall joined m gro p in Ma 2022. Mosharaf orks on pancrea ic cancer herein he foc s is o nders and he her inhibi ion of SLC6A14, an amino acid ranspor er and a mor promo er ind ces a ophag and macropinoc osis, bo h of hich are n rien sca enging mechanisms and hereb par l compensa e for he loss of SLC6A14 f nc ion. If his is r e, Mosharaf s research ill sho he her inhibi ing bo h SLC6A14 and a ophag /macropinoc osis ill lead o a be er herape ic o come in pancrea ic cancer.

Tanima Sharker: Tanima is a second ear PhD grad a e s den in m labora or . She s ar ed ro a ing hro gh m labora or from Jan ar of 2023 and officiall joined in April 2023. Tanima s projec in ol es genera ion of pancrea ic cancer organoids and i s

Biochemistr . He is c rrentl orking as a Postdoctoral Fello at NCI, Bethesda MD.

Timoth Bro n, 2017-2020: Dissertation Committee Member, Cell Biolog and Biochemistr . He is c rrentl contin ing his Radiolog Residenc at TTUHSC.

Jonathan Koppel, 2018-2021: Dissertation Committee Member, Cell Biolog and Biochemistr . He is c rrentl contin ing his MD program at TTUHSC.

Jos e Enriq e , 2018-2022: Dissertation Committee Member, Imm nolog and Molec lar Microbiolog . He is c rrentl orking as a Postdoctoral fello at Netherlands.

Ke in Bass , 2019-present: Dissertation Committee Member, Cell Biolog and Biochemistr .

Sa anika D tta, 2021-present: Dissertation Committee Member, Cell Biolog and Biochemistr .

Mari n Mathe , 2022-present: Dissertation Committee Member, Cell Biolog and Biochemistr .

Tasmin Om , 2022-present: Dissertation Committee Member, Cell Biolog and Biochemistr .

Geetha Pri a Boligala, 2022-present: Dissertation Committee Member, Cell Biolog and Biochemistr .

Ganesh Achar a, 2023-: Dissertation Committee Member, Cell Biolog and Biochemistr .

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Nh On, 2018-2019: Nh as a TTU CISER Scholar ho joined m labora or for an ndergrad e research. I also men ored her for her Research Credi (BIOL 4300). In her research, Nh sed me formin, hich is an FDA-appro ed dr g for T pe 2 diabe es o arge SLC6A14 in pancrea ic cancer. She made significan progress in her projec and e are c rren l ge ing he man scrip read o s bmi o *Biochemical Journal* i h her as he firs a hor. She presen ed her ork a he 10th Te as Tech Ann al Biological Sciences S mposi m a Te as Tech Uni ersi , L bbock TX. April 26-27, 2019 and also a he TTU Undergrad a e Research Conference. She is also a co-a hor in an original ar icle p blished in *Asian Journal of Pharmaceutical Sciences*. She is c rren l orking as a Research Technician II a UT So h es ern Medical Cen er a Dallas, TX and is also appl ing o medical schools for he MD program.

Andre Ibrahim, 2021-2022: Andre is an ndergrad a e Cell and Molec lar Biolog s den from Te as Tech Uni ersi Honors College. He s ar ed orking in m labora or from March, 2021. His aim in he research ork as o el cida e he molec lar mechanism of ranscrip ional inhibi ion of SLC6A14 follo ing me formin rea men in pancrea ic cancer cells i h a special foc s on cer ain miRNAs ha are he predic ed arge s for SLC6A14.

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Elise Shen, 2015: Elise as an MD s den ho had regis ered for he Medical S den S mmer Research Program (MSSRP). Since her projec as foc sed on pros a e cancer, I as responsible for eaching her cell c l re echniq es, RNA isola ion, cDNA s n hesis, Real- ime PCR, and da a anal sis. I also helped her i h imm nofl orescence and phase con ras microscop and also g ided her o prepare he pos er for he TTUHSC Ann al S den Research Week 2016.

Ni a K ikanda hil, 2016: Ni a as an MD s den ho had regis ered for he Medical S den S mmer Research Program (MSSRP). Since her projec as foc sed on pros a e cancer, I as responsible for eaching her cell c l re echniq es, especiall handling of cancer cell lines, molec lar biolog echniq es like RNA isola ion, cDNA s n hesis, Real- ime PCR, imm nofl orescence and also da a anal sis. She is c rren l p rs ing her Anes hesiolog Residen a UT Heal h, San An onio, TX.

Prisca P ng e, 2018: Prisca as an MD s den ho joined m lab in J ne 2018 for he Medical S den S mmer Research Program (MSSRP). Her research foc s as o charac eri e he e pression profile of PEPT1/SLC15A1 in pancrea ic cancer cells. I a gh her o c l re pancrea ic cancer cell lines, o prepare cell l sa es from hese cell lines, es ima e pro ein concen ra ion sing BCA assa , prepare SDS-PAGE gels, o r n Wes ern blo ing, and also o de elop and anal se hem. She is c rren l p rs ing her In ernal Medicine Residen a Ba lor College of Medicine, Ho s on, TX.

J s in Malin, 2021: J s in is an MD s den ho joined m lab for he Medical S den S mmer Research Program (MSSRP). In his projec , he foc sed on he role of pancrea ic s ella e cells (PSCs) in pancrea ic cancer progression and gro h. As his s mmer research men or, m responsibili as o g ide him b gi ing a horo gh e plana ion of he projec

ha he as orking on, designing e perimen s and ro bleshoo ing and also help in anal ing he da a. He is c rren l con in ing his MD program here a TTUHSC.

Richard Zh , 2022: Richard is a firs ear MD s den ho joined m lab for he Medical S den S mmer Research Program (MSSRP). In his projec , Richard foc sed on s d ing he her blockade of SLC6A14 ind ces macropinoc osis in pancrea ic cancer cells and if es, he her arge ing bo h SLC6A14 and macropinoc osis ill lead o a be er herape ic o come in pancrea ic cancer. As his MSSRP men or, m responsibili incl ded gi ing a horo gh e plana ion of he projec ha he as orking on, designing e perimen s and ro bleshoo ing and also help in anal ing he da a. He is c rren l con in ing his MD program here a TTUHSC.

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2023- *Adhoc* member, Ten re and Promo ion commi ee

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2022- 2024 Te as Tech Uni ersi Heal h Sciences Cen er Fac l Appoin men s Commi ee

2022-2023 Te as Tech Uni ersi Heal h Sciences Cen er Grad a e Co ncil Member

2019-2023 Te as Tech ni ersi Heal h Sciences Cen er Ins i ional Animal Care and Use Commi ee (TTUHSC IACUC) scien ific o ing member

2019-presen Cell Biolog and Biochemis r , Fac l Recr i men Commi ee (Ka la Wei la f Endo ed Professor)

2018- presen GSBS Bio ech S den Selec ion Commi ee Member, TTUHSC-SOM Commi ee Member

2022- presen GSBS PhD S den Selec ion Commi ee Member, TTUHSC-SOM Commi ee Member

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2022-2023 School of Medicine, Lessons, Life and Leadership fac l de elopmen co rse Sep ember 16, 2022, TTUHSC, L bbock, TX

2022-2023 School of Medicine, Lessons, Life and Leadership fac l de elopmen co rse December 2, 2022, TTUHSC, L bbock, TX

2022-2023 School of Medicine, Lessons, Life and Leadership fac l de elopmen co rse Jan ar 10, 2023, TTUHSC, L bbock, TX

2019- 2020 School of Medicine, Lessons, Life and Leadership fac l de elopmen co rse J ne 8, 2020, TTUHSC, L bbock, TX

2019-2020 School of Medicine, Lessons, Life and Leadership Seminar Series (L3) Fac l de elopmen co rse J l 27, 2020, TTUHSC, L bbock, TX

2019-2020 Lessons, Life and Leadership Seminar Series for Women Fac l in Academic Medicine, TTUHSC, L bbock, TX

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11. Gopal, E., Bab , E., Ramachandran, S., *** + , -."/(! I( ) I/(**Prasad, P. D., and Ganapa h , V. (2015) Species-specific infl ence of li hi m on he ac i i of SLC13A5 (NaCT): li hi m-ind ced ac i a ion is specific for he ranspor er in prima es. *J Pharmacol*

and heir f nc ions in ph siolog and cancer. *Biochim Bioph s Acta***(ŸbaQ/(**2531- 2539.

22. Coo hankandas am , V., Cao, S., X , Y., Prasad, P. D., Singh, P. K., Re nolds, C. P., Yang, S., Og ra, J., Ganapa h , V., and * *** + , -."/(! l( ) l(** (2016) Amino acid

33. Ris ic, B., Sikder, M. O. F., *** + , -."/(! I( ) I/(**and Ganapa h , V. (2020) Pharmacologic ind cers of he ric acid e por er ABCG2 as po en ial dr gs for rea men of go ar hri is. *Asian J Pharm Sci***(YR/** 173-180.

34. ^*** + , -."/(! I( ) I/(** Og ra, J., Grippo, P. J., Torres, C., Sa o, T., Wach el, M., Ramachandran, S., Bab , E., Si aprakasam, S., Rajasekaran, D.*, et al.* (2020) Chronic e pos re o e cess iron promo es EMT and cancer ia p53 loss in pancrea ic cancer. *Asian J Pharm Sci***(YR/** 237-251.

35. Sikder, M. O. F., Si aprakasam, S., Bro n, T. P., Thangaraj , M., *** + , -."/(! I( ) I/(**and Ganapa h , V. (2020) SLC6A14, a Na+/Cl--co pled amino acid ranspor er, f nc ions as a mor promo er in colon and is a arge for Wn signaling. *Biochem J***(c]]/** 1409-1425.

36. Hig chi, K., Sa o, T., *** + , -."/(! I( ) I/(**and Ganapa h , V. (2020) In ol emen of a Na^+-co pled oligopep ide ranspor s s em for β-am loid pep ide (Aβ 1-42) in brain cells. *Pharm Res***(Q] /** 98.

37. Cai, A., Zheng, H., Chen, Z., Lin, X., Li, C., Yao, Q., *** + , -."/(! I( ) I/(**Ganapa h , V., Chen, R., and Ko , L. (2020) S nergism be een SLC6A14 blockade and gemci abine in pancrea ic cancer: a 1H-NMR-based me abolomic s d in pancrea ic cancer cells. *Biochem J***(c]]/** 1923-1937.

38. Ko , L., Yao, Q., Zhang, H., Ch , M., *** + , -."/(! I( ) I/(**Chen, R., and Ganapa h , V. (2020) Transpor er- arge ed nano-si ed ehicles for e

44. *** + , -."/(! I( ) I/(**Ma he , M., Si aprakasam, S., Ramachandran, S., and Ganapa h , V. (2022) Uncon en ional f nc ions of amino acid ranspor ers: Role in macropinoc osis (SLC38A5/SLC38A3) and die -ind ced obesi /me abolic s ndrome

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1. Zh , R., Rajasekaran, D. and ***+,-."/(!I)I** SLC6A14 blockade ind ces micropinoc osis as a compensa or mechanism for amino acid acq isi ion in pancrea ic cancer cells. 35th Ann al S den Research Week 2023, Te as Tech Uni ersi Heal h Sciences Cen er, L bbock TX. Febr ar 28-March 3, 2023.

2. Mahm d S ed, M., Rajasekaran, D., Sniego ski, T. and ***+,-."/(!I)I** S d ing he compensa or mechanism associa ed i h SLC6A14 blockade in pancrea ic cancer. 35th Ann al S den Research Week 2023, Te as Tech Uni ersi Heal h Sciences Cen er, L bbock TX. Febr ar 28-March 3, 2023.

3. Sniego ski, T., Ganapa h , V. and ***+,-."/(!I)I** In es iga ing he mor promo ing role of SLC38A5 in pancrea ic d c al adenocarcinoma. 35th Ann al S den Research Week 2023, Te as Tech Uni ersi Heal h Sciences Cen er, L bbock TX. Febr ar 28-March 3, 2023.

4. Korac, K., Rajasekaran, D., and ***+,-."/(!I)I** Carbidopa, an ac i a or of ar l h drocarbon recep or, s ppresses IDO1 e pression in pancrea ic cancer and decreases mor gro h. [abs rac]. In: Proceedings of he AACR Special Conference: Precision Pre en ion, Earl De ec ion, and In ercep ion of Cancer; 2022 No 17-19; A s in, TX. Philadelphia (PA): AACR; Can Pre Res 2023;16(1 S ppl): Abs rac nr P052.

5. Korac, K., Rajasekaran, D., and ***+,-."/(!I)I** Carbidopa, an ac i a or of ar l h drocarbon recep or, s ppresses IDO1 e pression in pancrea ic cancer and decreases mor gro h. In: Fif h Ann al Abilene In erdisciplinar S mposi m on Cancer and Biomedical Research; Sep ember 9, 2022.

6. Sniego ski, T., Ganapa h , V., and ***+,-."/(!I)I** SLC38A5 charac eri a ion and i s mor promo ing role in pancrea ic d c al adenocarcinoma. [abs rac]. In: Proceedings of he AACR Special Conference: Precision Pre en ion, Earl De ec ion, and In ercep ion of Cancer; 2022 No 17-19; A s in, TX. Philadelphia (PA): AACR; Can Pre Res 2023;16(1 S ppl): Abs rac nr P005.

7. Sniego ski, T., Ganapa h , V., and ***+,-."/(!I)I** SLC38A5 charac eri a ion and i s mor promo ing role in pancrea ic d c al adenocarcinoma. In: Fif h Ann al Abilene In erdisciplinar S mposi m on Cancer and Biomedical Research; Sep ember 9, 2022.

8. Sniego ski, T. and ***+,-."/(!I)I(**T mor promo ing role of SLC38A5 in pancrea ic d c al adenocarcinoma. 34 h

10. Schniers, B.K. and ***+,-."/(!I)I(** PEPT1 is essen ial for he gro h of pancrea ic cancer cells: A iable dr g arge . 34 h Ann al S den Research Week 2022

11. Sniego ski T, and ***+,-."(!)I(** (2021). E pression profile and f nc ional charac eri a ion of SLC38A5 in pancrea ic d c al adenocarcinoma. 33rd Ann al S den Research Week 2021, Te as Tech Uni ersi Heal h Sciences Cen er, L bbock TX. March 9-12, 2021.

12. Korac K, and ***+,-."(!)I(** (2021). Carbidopa as a no el and arge ed single agen chemo-imm no herap for pancrea ic cancer.33rd Ann al S den Research Week 2021, Te as Tech Uni ersi Heal h Sciences Cen er, L bbock TX. March 9-12, 2021.

13. Schniers BK, and

29. *** + , -."(!)** , Singh N, Ganapa h V. (2012). Dele ion of Slc5a8 in mice promo es me abolic s ndrome, colonic inflamma ion, and colon cancer: A phenomenon dependen on die ar fiber con en . [abs rac]. In: Proceedings of he 103rd Ann al Mee ing of he American Associa ion for Cancer Research; 2012 Mar 31-Apr 4;

n cleoside ranspor ers reg la es gemci abine ranspor in h man pancrea ic cancer cells. UGA conference on dr g disco er , No ember 5, 2009.

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1. Uni ersi of Georgia conference on Dr g Disco er , No ember 2009, A hens GA
2. AAPS Ann al mee ing and e posi ion, No ember 2009, Los Angeles, California
3. American Associa ion of Pharmace ical Sciences (AAPS) Ann al mee ing and e posi ion /FIP pharmace ical sciences orld congress, No ember 2010, Ne Orleans, Lo isiana
4. American Associa ion of Pharmace ical Sciences (AAPS) orkshop on dr g ranspor ers in ADME: From he bench o bedside, March 2011, Be hesda, MD
5. American Associa ion for Cancer Research (AACR) Ann al Mee ing April 2012, Chicago, IL
6. American Associa ion for Cancer Research (AACR) Ann al Mee ing April 2012, Washing on, DC
7. American Associa ion for Cancer Research (AACR) Ann al Mee ing April 2014, San Diego, California
8.

Presentation.

4. Cell c cle dependen e pression of n cleoside ranspor ers reg la es gemci abine ranspor in h man pancrea ic cancer cells. Medical College of Georgia, Depar men of Biochemis r and Molec lar Biolog , A g s a GA. December 5, 2010. Hos : Dr. V. Ganapa h . *Invited talk*, December 5, 2010.

5. SLC6A14 for pancrea ic cancer for chemo herap and dr g deli er . Depar men of Cell Biolog and Biochemis r , Te as Tech Uni ersi Heal h Sciences Cen er, L bbock, TX, Febr ar 8, 2016.

6. SLC6A14 as a mor promo er for pancrea ic cancer. Depar men of Imm nolog and Molec lar Microbiolog , Te as Tech Uni ersi Heal h Sciences Cen er, L bbock, TX, Febr ar 8, 2016. Hos : Dr. Rober Brigh .

Kras$^{G12D/+}$*; LSL-p53*$^{R172H/+}$*; Pd -1 Cre* (KPC*)* mo se, a spon aneo s mo se model of pancrea ic cancer in Slc6a14 knocko backgro nd. Using he KPC mice in bo h Slc6a14 ild pe and knocko backgro nds, e ha e recen l sho n ha dele ion of Slc6a14 in his mo se a en a es pancrea ic cancer gro h, decreases he me as a ic spread of he mor, red ces asci es fl id acc m la ion, and impro es o erall s r i al. A he molec lar le el, e sho lo er prolifera ion inde and red ced desmoplas ic reac ion follo ing Slc6a14 dele ion. This ork as p blished in and also formed a in he jo rnal.

7. O r la es finding incl des iden ifica ion of SLC38A5 as a mor promo er in pancrea ic cancer. This amino acid ranspor er i h a narro s bs ra e selec i i is highl preg la ed in pancrea ic cancer. Using CRISPR-Cas9 media ed knocko , e ha e demons ra ed ha he loss of SLC38A5 significan l impac s mor gro h in a h mic n de mice. More in eres ingl , e find ha he loss of SLC38A5 impac s o ida i e phosphor la ion and gl col sis in he pancrea ic cancer cells. This ork as p blished in .

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1. School of Medicine Research Collabora ion F nd on Jan ar 15, 2024. G an (Principal In es iga or) and**(*+,-."(**H@&X**29.#5.F"A(**0#**K6:-.$"-&9J**; De elopmen of no el ools for anal ing cancer-rela ed molec les. F nded; $10,000 for 1 ear.**(**

2. The CH Fo nda ion; Jan ar 2022 December 2022, ***+,-."(!$-&1",&"3TT61Tf**[X**)0.**

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1. CPRIT

on 06/25/2015, Ganapa h V (Principal In es iga or), ***+,-."(!)(** H@&X0#**K6:-.$"-&9J** Chronic e pos re o e cess iron in pros a e cancer dri es mor gro h. 20% effor , $573,750. *Overall Evaluation Score: 2.3.*

4. Depar men of Defense; DoD Concep A ard LC150581, s bmi ed on 06/26/2015, ***+,-."(!)(** H**29.#5.F"**A**(**0#**K6:-.$"-&9J** Chronic e pos re o e cess iron promo es l ng cancer and me as asis ia heme-dependen s ppression of p53. 50% effor , $153,000. *Score: 1.5.*

5. Na ional Ins i e of Heal h; NIH R21 CA205490-01, s bmi ed on 06/26/2015, ***+,-."(!)(** H**29.#5.F"**A**(**0#**K6:-.$"-&9J**; Ganapa h V (Co-In es iga or); Wach el M (Co-In es iga or) Hemochroma osis in pancrea ic cancer s ppresses p53 and ind ces dr g resis ance. 20% effor , $275,000. *Not Discussed.*

6. CPRIT HIHR RP160754, s bmi ed on 10/08/2015, ***+,-."(!)(**H**29.#5.F"**A**(**0#**K6:-.$"-&9J**; Ganapa h V (Co-In es iga or); Wach el M (Co-In es iga or), The amino acid ranspor er SLC6A14 dri es pancrea ic cancer and represen s a no el selec i e dr g for his diffic l - o- rea cancer. 20% effor , $275,000. *Overall Evaluation Score: 6.0.*

7. Na ional Ins i e of Heal h; NIH R21 CA201654-01A1, s bmi ed on 11/05/2015, ***+,-."(!)(**H**29.#5.F"**A**(**0#**K6:-.$"-&9J**e Bab E (Co-in es iga or) S ra egic se of ranspor ers o re erse gemci abine resis ance in pancrea ic cancer.**(** 50% effor , $275,000. *Not Discussed.*

8. Depar men of Defense, DoD Break hro gh A ard F nding Le el 3 BC151170; s bmi ed on 12/23/2015, Ganapa h V (Principal In es iga or), ***+,-."(!)(**H@&X0#**K6:-.$"-&9J** A no el and effec i e d al- arge chemo-imm no herap agen for breas cancer. 20% effor , $3,742,005. *Overall Evaluation Score: 2.3.*

9. Na ional Ins i e of Heal h; NIH 1 R21 TR001724-01, s bmi ed on 01/11/2016, ***+,-."(!)** H**29.#5.F"**A**(**0#**K6:-.$"-&9J**e Bab E (Co-in es iga or) Carbidopa as a single-agen , d al- arge chemo-imm no herap dr g for pancrea ic cancer. 40% effor , $275,000. *Impact Score: 40.*

10. American Associa ion of Pharmace ical Scien is s; AAPS Fo nda ion Ne In es iga or Gran , s bmi ed on 03/21/2016, ***+,-."(!)** H**29.#5.F"**A**(**0#**K6:-.$"-&9J** Alpha-me h l-L-DOPA, an FDA-appro ed dr g, as a no el agen for pancrea ic cancer. 40% effor , $40,000. *Not Funded.*

11. Depar men of Defense, DoD Break hro gh A ard F nding Le el 1 BC160532; s bmi ed on 05/05/2016, Ganapa h V (Principal In es iga or), ***+,-."(!)(** H@&X0#**K6:-.$"-&9J**

13. Na ional Ins i e of Heal h; NIH 1 R03 CA223271-01; s bmi ed on 02/21/2017, ***+,-."(!)(** H29.#5.F"A(0#K6:-.$"-&9J Carbidopa as an inhibi or of he TrpT/IDO1 comple : Po en ial for se as an imm no herap agen ? 15% effor , $100,000. *Impact Score: 31.*

14. Presiden s Collabora i e Research Ini ia i e (PCRI); s bmi ed on 06/23/2017, ***+,-."(!)** H29.#5.F"A(0#K6:-.$"-&9Je Maso d ZM (Co- in es iga or) S nergis ic le hali of Carbidopa and Me formin in pancrea ic cancer ia me abolomics reprogramming. 15% effor , $48,365.80. *Not Funded.*

15. Pancrea ic Cancer Ac ion Ne ork, Ca al s Gran , Proposal ID: 569328; s bmi ed on 12/31/2017,**(*+,-."(!)(**H29.#5.F"A(0#K6:-.$"-&9J SLC6A14 is a no el and effec i e dr g arge for pancrea ic cancer. 40% effor , $500,000. *Not Funded.*

16. CPRIT HIHR RP180799; s bmi ed on 01/29/2018, ***+,-."(!)(**H29.#5.F"A(0#K6:-.$"-&9Je Fille r S (Co-In es iga or) Hemochroma osis dri es pros a e cancer: A golden oppor ni for cancer pre en ion in a si eable pop la ion. 30% effor , $200,000. *Overall Evaluation Score: 4.3.*

17. CPRIT HIHR RP190572; s bmi ed on 01/25/2019, ***+,-."(!)(**H29.#5.F"A(0#K6:-.$"-&9J Pancrea ic organoids as models o iden if no el and effec i e blockers of SLC6A14 o rea pancrea ic cancer. 30% effor , $250,000. *Overall Evaluation Score: 4.3.*

18. Na ional Ins i e of Heal h; NIH 1R01 CA248153-01;(s bmi ed on 06/04/2019, ***+,-."(!)(** H29.#5.F"A(0#K6:-.$"-&9Je Ganapa h V (Co-In es iga or); Wach el M (Co-In es iga or) SLC6A14 as a niq e dr g arge o rea pancrea ic s 9,

24. Depar men of Defense (DoD), Idea A ard CA200293; s bmi ed on 08/27/2020, Ganapa h V (Principal In es iga or); ***+,-."(!)(**H@&X0#**K6:-.$"-&9J** S nergism be een ci ra e and iron shields li er cancer from ferrop osis: E al a ion of SLC13A5 as a no el dr g arge in a h mani ed mo se. 15% effor , $765,000. *Score: 2.1*.

25. Na ional Ins i e of Heal h; 1 R01 CA262420-01; s bmi ed on 10/05/2020, ***+,-."** YD H**29.#5.F"**A**(** 0#**K6:-.$"-&9J**e Yang S (Co-In es iga or); Wach el M (Co-In es iga or) SLC6A14 as a niq e dr g arge o rea pancrea ic cancer. 40% effor , $1,923,903. *Impact Score:43 & Percentile: 42.*

26. RP210124-CPRIT-HIHR; s bmi ed on Jan ar 2021, ***+,-."(!)(** H**29.#5.F"**A**(** 0#**K6:-.$"-&9J**; Pr i K (Co-In es iga or) Pancrea ic s ella e cells and Wn /Be a-ca enin pa h a : A d namic d o reg la e SLC6A14 and promo e pancrea ic morigenesis, 20% effor , $250,000. *Overall Evaluation Score: 4.7.*

27. Na ional Ins i es of Heal h (NIH), R21, 2020, ***+,-."(**H@&X0#**K6:-.$"-&9J** A Na-co pled ranspor er for am loid pep ides: Role in brain clearance of Abe a in heal h and disease, 15% effor . *Not Discussed.*

45.