Research achievements

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Peer-Reviewed Review Articles

In English

1 Nakanishi T: Drug transporters as targets for cancer chemotherapy, *Cancer Genomics Proteomics*, **4**:241-54, 2007

2 Nakanishi T, Tamai I: Solute carrier transporters as targets for drug delivery and pharmacological intervention for chemotherapy, *J Pharm Sci*, **100**:3731-3750, 2011, DOI: 10.1002/jps.22576

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11 Nakamura Y, Nakanishi T, Tamai I: Membrane transporters contributing to PGE_2 distribution in central nervous system, *Biol Pharm Bull*, **41**:1337-1347, 2018, DOI: 10.1248/bpb.b18-00169

12 Saveleva EE, Tyutrina ES, Nakanishi T, Tamai I, Salmina AB: Inhibitors of the apical sodium-dependent bile acid transporter (ASBT) as promising drugs, *Biochem Moscow Suppl Ser B*, **15**:16-26, 2021 DOI: 10.1134/S1990750821010078

13 Nakanishi T, Nakamura Y, Umeno J: Recent advances in studies of SLCO2A1 as a key regulator of the delivery of prostaglandins to their sites of action, *Pharmacol Ther*, **223**:107803, DOI: 10.1016/j.pharmthera.2021.107803

In Japanese

None

In other languages

1 Saveleva EE, Tyutrina ES, Nakanishi T, Tamai I, Salmina AB., ИНГИБИТОРЫ НАТРИЙ-ЗАВИСИМОГО ПЕРЕНОСЧИКА ЖЕЛЧНЫХ КИСЛОТ (ASBT) КАК ПЕРСПЕКТИВНЫЕ КАРСТВЕННЫЕ СРЕДСТВА, Biomed Khim, **66**:185-195, 2020 DOI: 10.18097/PBMC20206603185 (Article in Russian)

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Peer-reviewed Research Articles

In English

1 Kizu R, Nakanishi T, Miyazaki M, Tashiro T, Noji M, Matsuzawa A, Eriguchi M, Takeda Y, Akiyama N, Kidani Y: An orally active antitumor cyclohexanediamine-Pt(IV) complex: trans,cis,cis-bis(n-valerato)(oxalato)(1R,2R-cyclohexanediamine)Pt(IV), *Anticancer Drugs*, **7**:248-256,1996

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None

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(List shows only abstracts published in International Conferences)

Domestic

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bosentan in human liver. North American ISSX and 29th JSSX Meeting, San Francisco, CA, 2014.10.19-23.

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knockout mice. Globalization of Pharmaceutics Education Network (GPEN) Conference, Poster, Lawrence, KS, Nov. 9-12, 2016.

62 Matsuoka N, Arakawa H, Washio I, Kubo H, Staub Y, Nakamichi N, Ishiguro N, Kato Y, Nakanishi T, Tamai I. Utility of Kidney Slices for Evaluation of Tubular Epithelial Apical Membrane Transporters. AAPS Annual Meeting and Exposition, San Diego, CA, Nov 13, 2017.

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66 Nishizawa K, Yoda N, Morokado F, Nakanishi T, Tamai I. Down-regulation of kidney Mate 1 by increased serum uric acid leading to pharmacokinetic changes in rats. 2018 international Meeting on the 22nd MDO and 33rd JSSX, Kanazawa, October 1-5, 2018.

67 Kubo H, Arakawa H, Matsuoka N, Nedachi S, Yamaki I, Saub Y, Nakanishi T, Tamai I. Rat kidney slices for evaluation of apical membrane transporters in tubular epithelial cells. 2018 international Meeting on the 22nd MDO and 33rd JSSX, Kanazawa, October 1-5, 2018.

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transition. 2018 international Meeting on the 22nd MDO and 33rd JSSX, Kanazawa, October 1-5, 2018.

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72 Iwamoto Y, Fujita D, Arai T, Shirasaki Y, Aosaki H, Arai M, Wakayama T, Komori H, Nakanishi T, Tamai I. Down-regulation of intestinal bile acid transporter ASBT by apple-derived nanoparticles. 2018 international Meeting on the 22nd MDO and 33rd JSSX, Kanazawa, October 1-5, 2018.

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74 Hiarayama M, Hoshino Y, Yoshii K, Toda R, Kawabata Y, Nakanishi T, Tamai I. Identification of transporter responsible for gastric distribution of acotiamide, an orally active acethylcholinesterase inhibitor. 2018 international Meeting on the 22nd MDO and 33rd JSSX, Kanazawa, October 1-5, 2018.

75 Arakawa H, Omote S, Matsuoka N, Nakanishi T, Tamai I. Effect of tyrosine kinase inhibitors on renal handling of creatinine via OCT2 and MATE1 transporters. 2018 international Meeting on the 22nd MDO and 33rd JSSX, Kanazawa, October 1-5, 2018.

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77 Takashima H, Shumba M, Tamai I, Nakanishi T. OATP2A1/SLCO2A1 mediates transepithelial transport of prostaglandin E2 in the alveolar lumen, The 3rd Workshop for Japan-Korea Young Scientists on Pharmaceutics, Urayasu, Chiba, July 10-11, 2019.

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Patents

1 P6124273
Publication number: P2013-180959A
Date of registration: April 14, 2017
Date of issue: May 10, 2017
Title of the invention: Test agent for measuring metabolic function by molecular imaging
Patentee: Kanazawa University

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Research Grants

Extramural

1. 2008/1-2008/12
American Cancer Society（米国がん協会） 代表 20,000 USD
Role of LAT1 in cell survival of ovarian cancer cells

2. 2009/9-2011/3
科学研究費助成事業　若手スタートアップ 代表 2,040 千円
腫瘍組織選択的 5-アミノレブリン酸誘導プロトポルフィリン蓄積メカニズムの解明

3. 2010/4-2011/3
上原記念生命科学財団　研究助成金 分担 5,000 千円
細胞内オルガネラ膜輸送体の評価系樹立による薬物の細胞内動態と細胞毒性発現機構の解析

4. 2011/4-2013/3
科学研究費助成事業　挑戦的萌芽研究 分担 400 千円
胆管側膜輸送体の定量的可視化法の樹立と薬物間相互作用評価系への展開

5. 2011/4-2013/3
科学研究費助成事業　基盤研究 C（一般） 代表 4,100 千円
がん幹細胞特異的発現トランスポーターを標的とした化学療法の基盤構築

6. 2011/4-2013/3
科学研究費助成事業　基盤研究 C（一般） 分担 600 千円
部位差を考慮した薬物の消化管吸収評価システムの構築と製剤設計最適化への応用

7. 2012
New Zealand Health Research Grant 分担 10,000 NZD
Contribution of OCTN1 to toxicity from oxaliplatin-based cancer therapy

8. 2013/4-2014/3
公益財団法人北國がん基金　研究助成金 代表 1,000 千円
大腸癌の増殖・進展におけるプロスタグランジン輸送体の役割に関する研究

9. 2014/4-2016/3
科学研究費助成事業　挑戦的萌芽研究 分担 400 千円
併用薬物による局所組織濃度変動に起因したドネペジルの心毒性発現に関する研究

10. 2015/4-2017/3

科学研究費助成事業　挑戦的萌芽研究　　代表　3,640 千円
プロスタグランジン輸送体を作用標的とする新規抗炎症薬の提唱

11. 2015/4-2017/3
科学研究費助成事業　挑戦的萌芽研究　　分担　200 千円
癌関連トランスポーター発現解析に基づく機能性分子発現系による腫瘍診断薬の開発戦略

12. 2015/4-2019/3
科学研究費助成事業　基盤研究 B（一般）　　代表　13,700 千円
プロスタグランジン輸送体を基盤とする肺線維化とその抑制手法に関する研究

13. 2016/4-2018/3
科学研究費助成事業　挑戦的萌芽研究　　分担　200 千円
マイクロ RNA による OATP 輸送体の発現調節機構に基づく薬物療法最適化

14. 2017/4-2022/3
公益財団法人喫煙科学財団　研究助成金　　代表　11,000 千円
プロスタグランジントランスポーター活性調節に基づく喫煙肺線維症リスク軽減

15. 2020/4-2023/3
科学研究費助成事業　基盤研究 C（一般）　　代表　4,100 千円
脳内プロスタグランジンの新たな濃度調節機構と精神疾患における意義の解明

Extramural (Industrial Collaboration)

1. 2011-2013　　産学連携共同研究（小野薬品工業株式会社）分担 *20,000 千円
プロスタグランジン輸送体 KO マウス作製と評価

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Takasaki University of Health and Welfare

Intramural

1. 2006/6-2007/7
   UMGCCC Cancer Research Fund Pilot Grant
   (米国メリーランド大学グリーンバウム癌センター) 分担 20,000 USD
   Validation of the Human Tumor Stem Cell Assay Using Breast Cancer as a Model

2. 2007/1-2008/6
   UMGCCC Institutional Support
   (メリーランド大学グリーンバウム癌センター Start Up) 代表 50,000 USD
   Roles of amino acid transporters in cancers

3. 2012/4-2013/3
   金沢大学がん進展制御研究所共同研究 代表 250 千円
   輸送体を利用したがん幹細胞標的化戦略の基盤構築

4. 2012/4-2013/3
   金沢大先端科学ｲﾉﾍﾞｰｼｮﾝ推進機構･次世代重点研究ﾌﾟﾛｸﾞﾗﾑ 分担 3,000 千円
   薬物動態・個体差要因可視化による個別化 EBM (Evidence Based Medicine)の推進

5. 2013/4-2014/3
   金沢大学戦略的研究推進プログラム 代表 3,000 千円
   Transcriptotherapeutics の創出と医療への展開

6. 2013/4-2014/3
   北陸地区国立大学学術研究連携共同研究 代表 200 千円
   プロスタグランジン動態・生理作用探索

7. 2014/4-2015/3
   金沢大学がん進展制御研究所共同研究 代表 200 千円
   消化器癌の増殖・進展におけるプロスタグランジン輸送体の役割の解明

8. 2019/10-2022/9
   高崎健康福祉大学学内研究交流助成金 代表 3,000 千円
   トランスポーターを標的とする非アルコール性脂肪性肝疾患治療戦略