# Ткаченко Сергей Евгеньевич

**(19 апреля 1953 г. – 12 апреля 2014 г.)**

**Сергей Евгеньевич Ткаченко**, окончил Химический факультет МГУ им. М.В. Ломоносова в 1975 г. С 1979 по 2002 г. работал в Институте физиологически активных веществ (ИФАВ РАН), где организовал и руководил лабораторией специального органического синтеза. В эти годы его научные интересы сфокусировались в новой для Российской науки области - медицинской химии – как направленного поиска и конструирования новых лекарственных веществ. Он принял непосредственное участие в создании и чтении первого в России курса лекций по медицинской химии, который начали преподавать на кафедре органической химии Химического факультета МГУ под руководством академика Н.С. Зефирова. С 2002 г. и на протяжении многих лет возглавлял департамент Медицинской химии американской корпорации КемДив (ChemDiv Inc.), - одной из лидирующих мировых компаний в области Drug Discovery и Life Science. В 2013 году в качестве приглашенного профессора он начал работать в Московском физико-техническом институте (МФТИ), где читал курс лекций по медицинской химии.

Энциклопедичность знаний С.Е. Ткаченко определила чрезвычайно широкий круг его научных исследований: это создание новых оригинальных нейротропных препаратов, потенциальных онколитиков, радиопротекторов, поиск новых активных лекарственных средств в ряду природных соединений. Для решения этих задач им успешно решались проблемы дизайна комбинаторных библиотек органических соединений, структурная оптимизация фармакокинетических параметров лекарственных молекул, разработка новых синтетических подходов к получению макроциклов с потенциальной физиологической активностью и многое другое. Он является одним из изобретателей препарата — Латрепирдина (Димебон Dimebon), антигистаминного лекарственного средства карболинового ряда, проявившего высокую активность в терапии болезни Альцгеймера и запатентованного в РФ, США и Европе.

Мировой общественности широко известны работы Сергея Ткаченко в области ингибиторов Каспазы-3 (Caspase-3) и антагонистов 5-HT6 рецептора, лигандов GPR30, опубликованные в таких высокорейтинговых журналах как Nature Chemical Biology, Journal

of Medicinal Chemistry, European Journal of Medicinal Chemistry, Bioorganic & Medicinal Chemistry, Bioorganic & Medicinal Chemistry Letters и др.

Сергей Ткаченко внес большой вклад в открытие новых мульти-компонентных реакций, позволяющих атом-экономичным способом синтезировать библиотеки потенциально биологически активных пептидомиметиков и веществ, содержащих привилегированные структуры такие как функционализированные, пиперидины, диазепины, оксазепины, бенздиазепины, спироциклические пирролидины и др. Его работы в этой области отражены в многочисленных публикациях в таких лидирующих журналах как Journal of Organic Chemistry, European Journal of Organic Chemistry, Journal of Combinatorial Chemistry, Tetrahedron, Tetrahedron Letters и др.

За более чем 35 летний период работы в области медицинской химии им опубликовано более 200 публикаций в ведущих мировых научных журналах и более 100 патентов в США, Японии и России. О значимости вклада Сергея Ткаченко в медицинскую органическую химию свидетельствует тот факт, что его работы цитировались более 2000 раз в публикациях других авторов.

## Список основных публикаций

**(всего более 160 статей в научных журналах)**


1. IVACHTCHENKO, A; GOLOVINA, E; KADIEVA, M; MITKIN, O; **TKACHENKO, S;** OKUN, I.
*SYNTHESIS OF SUBSTITUTED DIPHENYL SULFONES AND THEIR STRUCTURE-ACTIVITY RELATIONSHIP WITH THE ANTAGONISM OF 5-HT6 RECEPTORS*
BIOORGANIC & MEDICINAL CHEMISTRY, 21(15), 4614-4627 (2013)

2. SORCI, L; BLABY, IK; RODIONOVA, IA; DE INGENIIS, J; **TKACHENKO, S;** DE CRECY-LAGARD, V; OSTERMAN, AL.
*QUINOLINATE SALVAGE AND INSIGHTS FOR TARGETING NAD BIOSYNTHESIS IN GROUP A STREPTOCOCCI*
JOURNAL OF BACTERIOLOGY, 195(4), 726-732 (2013)

3. IVACHTCHENKO, AV; GOLOVINA, ES; KADIEVA, MG; MITKIN, OD; **TKACHENKO, SE;** OKUN, IM.
*5-HT6 RECEPTOR ANTAGONISTS. I. SCREENING OF THE LIBRARY OF VARIOUS HETEROCYCLIC COMPOUNDS CONTAINING AN ALKYLSULFONYL MOIETY*
PHARMACEUTICAL CHEMISTRY JOURNAL, 46(5), 274-284 (2012)

4. MIT'KIN, OD; IVACHTCHENKO, AV; FROLOV, EB; **TKACHENKO, SE**; KAZEY, VI; OKUN', IM.
*SYNTHESIS AND RADIOLIGAND ACTIVITY OF HYDROGENATED AZEPINO[4,3-B]INDOLES*
PHARMACEUTICAL CHEMISTRY JOURNALя. 46(2), 103-113 (2012)

5. IVACHTCHENKO, AV; GOLOVINA, ES; KADIEVA, MG; KYSIL, VM; MITKIN, OD; **TKACHENKO, SE;** OKUN, IM.
*SYNTHESIS AND STRUCTURE-ACTIVITY RELATIONSHIP (SAR) OF (5,7-DISUBSTITUTED 3-PHENYLSULFONYL-PYRAZOLO[1,5-A]PYRIMIDIN-2-YL)-METHYLAMINES AS POTENT SEROTONIN 5-HT6 RECEPTOR (5-HT6R) ANTAGONISTS*
JOURNAL OF MEDICINAL CHEMISTRY, 54(23), 8161-8173 (2011)

6. TSALOEV, A; ILYIN, A; **TKACHENKO, S**; IVACHTCHENKO, A; KRAVCHENKO, D; KRASAVIN, M.

*CYCLIC PRODUCTS OF THE UGI REACTION OF ALDEHYDO AND KETO CARBOXYLIC ACIDS: CHEMOSELECTIVE MODIFICATION*

TETRAHEDRON LETTERS, 52(15), 1800-1803 (2011)

7. IVACHTCHENKO, AV; GOLOVINA, ES; KADIEVA, MG; KORYAKOVA, AG; MITKIN, OD; **TKACHENKO, SE;** KYSIL, VM; OKUN, I.

*2-SUBSTITUTED 5,6-DIMETHYL-3-PHENYLSULFONYL-PYRAZOLO[1,5-A]PYRIMIDINES: NEW SERIES OF HIGHLY POTENT AND SPECIFIC SEROTONIN 5-HT6 RECEPTOR ANTAGONISTS*

EUROPEAN JOURNAL OF MEDICINAL CHEMISTRY, 46(4), 1189-1197 (2011)

8. IVACHTCHENKO, AV; GOLOVINA, ES; KADIEVA, MG; KYSIL, VM; MITKIN, OD; **TKACHENKO, SE;** OKUN, I.

*SYNTHESIS AND SAR OF 3-ARYLSULFONYL-PYRAZOLO[1,5-A]PYRIMIDINES AS POTENT SEROTONIN 5-HT6 RECEPTOR ANTAGONISTS*

BIOORGANIC & MEDICINAL CHEMISTRY, 19(4), 1482-1491 (2011)

9. IVACHTCHENKO, AV; IVANENKOV, YA; **TKACHENKO, SE.**

*5-HYDROXYTRYPTAMINE SUBTYPE 6 RECEPTOR MODULATORS: A PATENT SURVEY*

EXPERT OPINION ON THERAPEUTIC PATENTS, 20(9), 1171-1196 (2010)

10. IVACHTCHENKO, AV; DMITRIEV, DE; GOLOVINA, ES; KADIEVA, MG; KORYAKOVA, AG; KYSIL, VM; MITKIN, OD; OKUN, IM; **TKACHENKO, SE;** VOROBIEV, AA.

*(3-PHENYLSULFONYLCYCLOALKANO[E AND D]PYRAZOLO[1,5-A]PYRIMIDIN-2-YL)AMINES: POTENT AND SELECTIVE ANTAGONISTS OF THE SEROTONIN 5-HT6 RECEPTOR*

JOURNAL OF MEDICINAL CHEMISTRY, 53(14), 5186-5196 (2010)

11. IVACHTCHENKO, AV; GOLOVINA, ES; KADIEVA, MG; KORYAKOVA, AG; KOVALENKO, SM; MITKIN, OD; OKUN, IM; RAVNYEYKO, IM; **TKACHENKO, SE;** ZAREMBA, OV.

*SYNTHESIS AND BIOLOGICAL STUDY OF 3-(PHENYLSULFONYL)THIENO[2,3-E][1,2,3]TRIAZOLO[1,5-A]PYRIMIDINES AS POTENT AND SELECTIVE SEROTONIN 5-HT6 RECEPTOR ANTAGONISTS*

BIOORGANIC & MEDICINAL CHEMISTRY, 18(14), 5282-5290 (2010)

12. IVACHTCHENKO, AV; GOLOVINA, ES; KADIEVA, MG; KORYAKOVA, AG; KOVALENKO, SM; MITKIN, OD; OKUN, IM; RAVNYEYKO, IM; **TKACHENKO, SE;** ZAREMBA, OV.

*SOLUTION PHASE PARALLEL SYNTHESIS OF SUBSTITUTED 3-PHENYLSULFONYL-[1,2,3]TRIAZOLO[1,5-A]QUINAZOLINES: SELECTIVE SEROTONIN 5-HT6 RECEPTOR ANTAGONISTS*

JOURNAL OF COMBINATORIAL CHEMISTRY, 12(4), 445-452 (2010)

13. **TKACHENKO S**., KYSIL V., FROLOV E., KHVAT A., OKUN I., MITKIN O., IVACHTCHENKO A.

*SYNTHESIS AND OPTIMIZATION OF PHARMACOLOGICAL PROFILE OF HEXAHYDRO- AND OCTAHYDRO-AZEPINO[4,3-B]INDOLES*

DRUGS OF FUTURE, 35(SUPPL. A): PC.093, P.94 (2010)

14. IVACHTCHENKO, AV; FROLOV, EB; MITKIN, OD; **TKACHENKO, SE;** KHVAT, AV.

*SYNTHESIS OF HYDROGENATED 2,7-DIMETHYLPYRROLO[3,4-B]INDOLES - ANALOGS OF DIMEBON*

CHEMISTRY OF HETEROCYCLIC COMPOUNDS, 46(2), 170-178 (2010)

15. MARJANOVIC, J; CHALUPSKA, D; PATENODE, C; COSTER, A; ARNOLD, E; YE, A; ANESI, G; LU, Y; OKUN, I; **TKACHENKO, S;** HASELKORN, R; GORNICKI, P.
*RECOMBINANT YEAST SCREEN FOR NEW INHIBITORS OF HUMAN ACETYLCOA CARBOXYLASE 2 IDENTIFIES POTENTIAL DRUGS TO TREAT OBESITY*
PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, 107(20), 9093-9098 (2010)

16. IVACHTCHENKO, AV; DMITRIEV, DE; GOLOVINA, ES; DUBROVSKAYA, ES;KADIEVA, MG; KORYAKOVA, AG; KYSIL, VM; MITKIN, OD; **TKACHENKO, SE;** OKUN, IM; VOROBIOV, AA.
*SYNTHESIS OF CYCLOALKANE-ANNELATED 3-PHENYLSULFONYLPYRAZOLO[1,5-A]PYRIMIDINES AND THEIR EVALUATION AS 5-HT6 RECEPTOR ANTAGONISTS*
BIOORGANIC & MEDICINAL CHEMISTRY LETTERS, 20(7), 2133-2136 (2010)

17. KYSIL, V; KHVAT, A; TSIRULNIKOV, S; **TKACHENKO, S;** WILLIAMS, C; CHURAKOVA, M; IVACHTCHENKO, A.
*GENERAL MULTICOMPONENT STRATEGY FOR THE SYNTHESIS OF 2-AMINO-1,4-DIAZAHETEROCYCLES: SCOPE, LIMITATIONS, AND UTILITY*
EUROPEAN JOURNAL OF ORGANIC CHEMISTRY, (8), 1525-1543 (2010)

18. OKUN, I; **TKACHENKO, SE;** KHVAT, A; MITKIN, O; KAZEY, V; IVACHTCHENKO, AV.
*FROM ANTI-ALLERGIC TO ANTI-ALZHEIMER'S: MOLECULAR PHARMACOLOGY OF DIMEBON (TM)*
CURRENT ALZHEIMER RESEARCH, 7(2), 97-112 (2010)

19. IVACHTCHENKO, AV; MITKIN, OD; **TKACHENKO, SE;** OKUN, IM; KYSIL, VM.
*8-SULFONYL-SUBSTITUTED TETRAHYDRO-1H-PYRIDO[4,3-B]INDOLES AS 5-HT6 RECEPTOR ANTAGONISTS*
EUROPEAN JOURNAL OF MEDICINAL CHEMISTRY 45(2), 782-789 (2010)

20. IVACHTCHENKO, AV; FROLOV, EB; MITKIN, OD; **TKACHENKO, SE;** OKUN, IM; KHVAT, AV.
*SYNTHESIS AND BIOLOGICAL ACTIVITY OF 5-STYRYL AND 5-PHENETHYLSUBSTITUTED 2,3,4,5-TETRAHYDRO-1H-PYRIDO[4,3-B]INDOLES*
BIOORGANIC & MEDICINAL CHEMISTRY LETTERS 20(1), 78-82 (2010)

21. IVASHCHENKO, AV; MITKIN, OD; KADIEVA, MG; **TKACHENKO, SE.**
*THE SYNTHESIS AND PHYSIOLOGICAL ACTIVITY OF 2,3,4,5-TETRAHYDRO-1HPYRIDO[4,3-B]INDOLES*
RUSSIAN CHEMICAL REVIEWS, 79(4), 285-306 (2010)

22. IVACHTCHENKO, AV; FROLOV, EB; MITKIN, OD; KYSIL, VM; KHVAT, AV; **TKACHENKO, SE.**
*SYNTHESIS AND BIOLOGICAL EVALUATION OF NOVEL 5,8-DISUBSTITUTED-2-METHYL-2,3,4,5-TETRAHYDRO-1H-PYRIDO[4,3-B] INDOLES AS 5-HT6 AND H-1 RECEPTORS ANTAGONISTS*
ARCHIV DER PHARMAZIE, 342(12), 740-747 (2009)

23. KYSIL, V; KHVAT, A; TSIRULNIKOV, S; **TKACHENKO, S;** IVACHTCHENKO, A.
*MULTICOMPONENT APPROACH TO UNIQUE 1,4-DIAZEPINE-2-AMINES*
TETRAHEDRON LETTERS, 50(24), 2854-2856 (2009)

24. IVACHTCHENKO, AV; FROLOV, EB; MITKIN, OD; KYSIL, VM; KHVAT, AV; OKUN, IM; **TKACHENKO, SE.**
*SYNTHESIS AND BIOLOGICAL EVALUATION OF NOVEL GAMMA-CARBOLINE ANALOGUES OF DIMEBON AS POTENT 5-HT6 RECEPTOR ANTAGONISTS*

BIOORGANIC & MEDICINAL CHEMISTRY LETTERS 19(12), 3183-3187 (2009)

25. **TKACHENKO, S**; IVACHTCHENKO, A; OKUN, I; LAVROVSKY, Y; MITKIN, O; SALIMOV, R.
*COMPARISON OF HIGHLY SELECTIVE AND NON-SELECTIVE 5-HT6 RECEPTOR ANTAGONISTS IN IN VITRO AND IN VIVO NEURODEGENERATIVE MODELS*
ALZHEIMERS DEMENT, 5, P492 (2009)

26. SALIMOV R., **TKACHENKO S.**
*EFFECT OF TACRINE AND DIMEBON ON SCOPOLAMINE- AND DIZOCIPLINE-INDUCED MEMORY IMPAIRMENT IN MICE*
ALZHEIMER'S AND DEMENTIA, 4(4), SUPPLEMENT 1: T211 (2008)

27. **TKACHENKO S**
DISCOVERY AND *IN VIVO* EVALUATION OF POTENT 5-HT6 RECEPTOR ANTAGONISTS FOR COGNITION ENHANCEMENT IN TREATING ALZHEIMER'S DISEASE
ALZHEIMER'S AND DEMENTIA, 4(4), SUPPLEMENT 1: T514 (2008)

28. SANDULENKO, YB; IVASHCHENKO, AV; KRAVCHENKO, DV; **TKACHENKO, SE;** VVEDENSKY, VY.
*PARALLEL SOLID-PHASE SYNTHESIS OF NOVEL 3,7-DIAZABICYCLO[3.3.1]NONANE DERIVATIVES STARTING FROM NATURAL ALKALOID CYTISINE*
RUSSIAN CHEMICAL BULLETIN, 57(9), 1999-2004 (2008)

29. BALAKIN, KV; IVANENKOV, YA; **TKACHENKO, SE;** KISELYOV, AS; IVACHTCHENKO, AV.
*REGULATORS OF CHEMOKINE RECEPTOR ACTIVITY AS PROMISING ANTICANCER THERAPEUTICS*
CURRENT CANCER DRUG TARGETS, 8(4), 299-340 (2008)

30. OKUN, I; BALAKIN, KV; **TKACHENKO, SE;** IVACHTCHENKO, AV.
*CASPASE ACTIVITY MODULATORS AS ANTICANCER AGENTS*
ANTI-CANCER AGENTS IN MEDICINAL CHEMISTRY, 8(3), 322-341 (2008)

31. IVANENKOV, YA; BALAKIN, KV; **TKACHENKO, SE.**
*NEW APPROACHES TO THE TREATMENT OF INFLAMMATORY DISEASE FOCUS ON SMALL-MOLECULE INHIBITORS OF SIGNAL TRANSDUCTION PATHWAYS*
DRUGS IN R&D 9(6), 397-434 (2008)

32. IVACHTCHENKO, AV; KISELYOV, AS; **TKACHENKO, SE;** IVANENKOV, YA; BALAKIN, KV.
*NOVEL MITOTIC TARGETS AND THEIR SMALL-MOLECULE INHIBITORS*
CURRENT CANCER DRUG TARGETS, 7(8), 766-784 (2007)

33. KYSIL, V; **TKACHENKO, S;** KHVAT, A; WILLIAMS, C; TSIRULNIKOV, S; CHURAKOVA, M; IVACHTCHENKO, A.
*TMSCI-PROMOTED ISOCYANIDE-BASED MCR OF ETHYLENEDIAMINES: AN EFFICIENT ASSEMBLING OF 2-AMINOPYRAZINE CORE*
TETRAHEDRON LETTERS, 48(36), 6239-6244 (2007)

34. BALAKIN, KV; IVANENKOV, YA; KISELYOV, AS; **TKACHENKO, SE.**
*HISTOINE DEACETYLASE INHIBITORS IN CANCER THERAPY: LATEST DEVELOPMENTS, TRENDS AND MEDICINAL CHEMISTRY PERSPECTIVE*
ANTI-CANCER AGENTS IN MEDICINAL CHEMISTRY, 7(5), 576-592 (2007)

35. KISELYOV, AS; **TKACHENKO, SE;** BALAKIN, KV; IVACHTCHENKO, AV.
*SMALL-MOLECULE MODULATORS OF HH AND WNT SIGNALING PATHWAYS*

EXPERT OPINION ON THERAPEUTIC TARGETS, 11(8), 1087-1101 (2007)

36. KISELYOV, A; BALAKIN, KV; **TKACHENKO, SE;** SAVCHUK, N; IVACHTCHENKO, AV.
*RECENT PROGRESS IN DISCOVERY AND DEVELOPMENT OF ANTIMITOTIC AGENTS*
ANTI-CANCER AGENTS IN MEDICINAL CHEMISTRY, 7(2), 189-208 (2007)

37. KISELYOV A, BALAKIN KV, **TKACHENKO SE**.
*VEGF/VEGFR SIGNALLING AS A TARGET FOR INHIBITING ANGIOGENESIS*
EXPERT OPIN INVESTIG DRUGS, 16(1):83-107 (2007)

38. OKUN, I; MALARCHUK, S; DUBROVSKAYA, E; KHVAT, A; **TKACHENKO, S;** KYSIL, V; KRAVCHENKO, D; IVACHTCHENKO, A.
*SCREENING FOR CASPASE-3 INHIBITORS: EFFECT OF A REDUCING AGENT ON IDENTIFIED HIT CHEMOTYPES*
JOURNAL OF BIOMOLECULAR SCREENING, 11(6), 694-703 (2006)

39. TRIFILENKOV, AS; KOBAK, VV; SALINA, MA; KUSOVKOVA, JA; ILYIN, AP; KHVAT, AV; **TKACHENKO, SE;** IVACHTCHENKO, AV.
*LIQUID-PHASE PARALLEL SYNTHESIS OF COMBINATORIAL LIBRARIES OF SUBSTITUTED 6-CARBAMOYL-3,4-DIHYDRO-2H-BENZO[1,4] THIAZINES*
JOURNAL OF COMBINATORIAL CHEMISTRY, 8(4), 469-479 (2006)

40. SHEVYAKOV, SV; DAVYDOVA, OI; PERSHIN, DG; KRASAVIN, M; KRAVCHENKO, DV; KISELYOV, A; **TKACHENKO, SE;** IVACHTCHENKO, AV.
*NATURAL PRODUCTS AS TEMPLATES FOR BIOACTIVE COMPOUND LIBRARIES: SYNTHESIS OF BIARYL DERIVATIVES OF (+/-)-VASICINE*
NATURAL PRODUCT RESEARCH, 20(8), 735-741 (2006)

41. KISELYOV, A; BALAKIN, KV; **TKACHENKO, SE;** SAVCHUK, NP.
*RECENT PROGRESS IN DEVELOPMENT OF NON-ATP COMPETITIVE SMALLMOLECULE INHIBITORS OF PROTEIN KINASES*
MINI-REVIEWS IN MEDICINAL CHEMISTRY, 6(6), 711-717 (2006)

42. BOLOGA, CG; REVANKAR, CM; YOUNG, SM; EDWARDS, BS; ARTERBURN, JB; KISELYOV, AS; PARKER, MA; **TKACHENKO, SE;** SAVCHUCK, NP; SKLAR, LA; OPREA, TI; PROSSNITZ, ER.
*VIRTUAL AND BIOMOLECULAR SCREENING CONVERGE ON A SELECTIVE AGONIST FOR GPR30*
NATURE CHEMICAL BIOLOGY, 2(4), 207-212 (2006)

43. ILYN, AP; LOSEVA, MV; VVEDENSKY, VY; PUTSYKINA, EB; **TKACHENKO, SE;** KRAVCHENKO, DV; KHVAT, AV; KRASAVIN, MY; IVACHTCHENKO, AV.
*ONE-STEP ASSEMBLY OF CARBAMOYL-SUBSTITUTED HETEROANNELATED [1,4]THIAZEPINES*
JOURNAL OF ORGANIC CHEMISTRY, 71(7), 2811-2819 (2006)

44. SAVCHUK, NP; **TKACHENKO, SE**; BALAKIN, KV.; ROGNAN, D.
*STRATEGIES FOR THE DESIGN OF PGPCR-TARGETED LIBRARIES*
LIGAND DESIGN FOR G PROTEIN-COUPLED RECEPTORS, 30, 137 (2006)

45. SAVCHUK, NP; **TKACHENKO, SE;** BALAKIN, KV.
*RATIONAL DESIGN OF GPCR-SPECIFIC COMBINATIONAL LIBRARIES BASED ON THE CONCEPT OF PRIVILEGED SUBSTRUCTURES*
CHEMOINFORMATICS IN DRUG DISCOVERY, 22, 287-313 (2005)

46. **TKACHENKO, SERGEY E;** OKUN, ILYA; BALAKIN, KONSTANTIN V; PETERSEN, CHARLES E; IVANENKOV, YAN A; SAVCHUK, NIKOLAY P; IVASHCHENKO, ANDREY A.
*EFFICIENT OPTIMIZATION STRATEGY FOR MARGINAL HITS ACTIVE AGAINST ABL TYROSINE KINASES*
CURRENT DRUG DISCOVERY TECHNOLOGIES, 1(3), 201-210 (2004)

47. SAVCHUK, NP; BALAKIN, KV; **TKACHENKO, SE.**
*EXPLORING THE CHEMOGENOMIC KNOWLEDGE SPACE WITH ANNOTATED CHEMICAL LIBRARIES*
CURRENT OPINION IN CHEMICAL BIOLOGY 8(4), 412-417 (2004)

48. BACHURIN S, BUKATINA E, LERMONTOVA N, **TKACHENKO S**, AFANASIEV A, GRIGORIEV V, GRIGORIEVA I, IVANOV Y, SABLIN S, ZEFIROV N.
ANTIHISTAMINE AGENT DIMEBON AS A NOVEL NEUROPROTECTOR AND A COGNITION ENHANCER
ANN N Y ACAD SCI, 939(JUN), 425-35 (2001)

49. SABLIN, SO; KRUEGER, MJ; SINGER, TP; BACHURIN, SO; KHARE, AB; EFANGE, SMN; **TKACHENKO, SE.**
*INTERACTION OF TETRAHYDROSTILBAZOLES WITH MONOAMINE-OXIDASE-A AND MONOAMINE-OXIDASE-B*
JOURNAL OF MEDICINAL CHEMISTRY, 37(1), 151-157 (1994)

50. BACHURIN, SO; **TKACHENKO, SE;** LERMONTOVA, NN.
*PYRIDINE-DERIVATIVES - STRUCTURE-ACTIVITY-RELATIONSHIPS CAUSING PARKINSONISM-LIKE SYMPTOMS*
REVIEWS OF ENVIRONMENTAL CONTAMINATION AND TOXICOLOGY, 122, 1-36 (1991)

## Перечень наиболее важных патентов, ноу-хау, авторских свидетельств

**(всего около 100 патентов и авторских свидетельств)**

1. Савчук Н.Ф., **Ткаченко С.Е**., Назаренков Д.Е.
   *Стимуляторы секреции инкретиновых гормонов, способы их получения и применения,* РФ 2456287 C1 (2011)

2. Ivashchenko A.A., Lavrovsky Y.V., Malyarchuk S.V., Okun I.M., Savchuk N.F., **Tkachenko S.E**., Khvat A.V., Ivashchenko A.V.
   *Heterocyclic inhibitors of an Hh-signal cascade, medicinal composition based thereon and methods for treating diseases caused by the aberrant activity of an Hh-signal system*
   US 20110053915 A1 (2011)

3. Ivashchenko A.A., Ivashchenko A.V., **Tkachenko S.E**., Okun I.M., Savchuk N.F.
   *Ligands of 5-HT6 receptors, pharmaceutical compositions, method for the production and use thereof*
   US 20110046368 A1 (2011)

4. Ivashchenko A.V., Lavrovsky Y.V., Mitkin O.D., Savchuk N.F., **Tkachenko S.E**., Okun I.M.
   *Ligands for alpha-adrenoceptors, dopamine, histamine, imidazoline and serotonin receptors*

*and their use*
US 20110039825 A1 (2011)

5. Khvat A., **Tkachenko S**., Okun I., Rogovoy B., Savchuk N., May J., O'Connor P., Ripka W., Vernier J-M., Matthews D
*Imidazo[1,2-a]pyridine-2-yl-phenyl derivatives to be used in cancer treatment*
WO 2010129620A1 (2010)

6. Ivashchenko A.A., Ivashchenko A.V., Lavrovsky Y.V., Mitkin O.D., Savchuk N.F., **Tkachenko S.E**., Okun I.M.
*Preparation of 1,2,3,4-tetrahydro-1H-pyrido[4,3-b]indoles and 1,2,3,4,5,6-hexahydroazepino[4,3-b]indoles as ligands for α-adrenoceptors and for dopamine, histamine, imidazoline and serotonin receptors and their use in treatment of CNS diseases*
WO 2009082268 A2 (2009)

7. Ivashchenko A.A., Lavrovsky Y.V., Lakner F., Malyarchuk S.V., Okun I.M., Savchuk N.F., **Tkachenko S.E**., Khvat A.V., Ivashchenko A.V.
*Preparation of heterocyclic compounds as inhibitors of an Hh-signal cascade for treatment of oncological diseases caused by the aberrant activity of an Hh-signal system and pharmaceutical compositions containing them*
WO 2009077956 (2009)

8. Ivashchenko A.V., **Tkachenko S.E.,** Okun I.M., Savchuk N.F., Kravchenko D.V., Ivashchenko A.A., Shmidt-Kittler O., Rago K., Papadopoulos N., Velkuelsku V., Vogelstein B., Kinzler K.W., Dzhuxiang Z.
*Annelated azaheterocycles comprising pyrimidine fragment, method for the production thereof and (PI3Ks) kinase inhibitors*
WO 2009011617 (2009)

9. Ivashchenko A.A., Ivashchenko A.V., **Tkachenko S.E**., Okun I.M., Savchuk N.F., Kravchenko D.V., Rizhova E.A., Alyabiev S.B., Khvat A.V.
*Preparation of annelated, pyrimidine-containing azaheterocyclic amides as PI3 kinase inhibitors for treatment of oncological and other diseases and process for their preparation*
WO 2009010925 (2009)

10. Иващенко А.В., **Ткаченко С.Е**., Окунь И.М., Савчук Н.Ф., Иващенко А.А., Кравченко Д.В., Рыжова Е.А., Алябьев С.Б., Хват А.В.
*Аннелированные азагетероциклические амиды, включающие пиримидиновый фрагмент, способ их получения и применения*
Приоритет 17.07.2007, *РФ* 2345996 C1 (2009)

11. Ivashchenko A.A., Ivashchenko A.V., **Tkachenko S.E**., Frolov E.B., Mitkin O.D., Kravchenko D.V., Okun I.M., Savchuk N.F.
*Preparation of substituted 2,3,4,5-tetrahydro-1H-pyrido[4,3-b]indoles as blockers for pharmaceutical compositions having antihistaminic activity*
WO 2008123800 (2008)

12. Ivashchenko A.V., **Tkachenko S.E**., Frolov E.B., Mit'kin O.D., Kravchenko D.V., Okun I.M., Savchuk N.F.
*Substituted 2,3,4,5-tetrahydro-1H-pyrido[4,3-b]indoles, methods for the production and use*

*thereof*
WO 2008123796 (2008)

13. Ivashchenko A.A., Ivashchenko A.V., **Tkachenko S.E**., Okun I.M., Savchuk N.F., Mit'kin O.D., Kravchenko D.V
*Substituted 2,3,4,5-tetrahydro-1H-pyrido[4,3-b]indoles as novel antihistaminic agents and processes for preparation thereof*
WO 2008115098 (2008)

14. Ivashchenko A.A., Ivashchenko A.V., **Tkachenko S.E.,** Okun I.M., Savchuk N.F.
*Preparation of derivatives of pyrrolo[4,3-b]indoles, γ -carbolines and azepino[4,3-b]indoles as ligands of 5-HT6 receptors for treating CNS diseases and pharmaceutical compositions containing them*
WO 2008060190 (2008)

15. Ivashchenko A.A., Frolov E.B., **Tkachenko S.E**., Khvat A.V., Malyarchuk S.V., Mitkin O.D., Okun I.M., Kyselev A.S., Savchuk N.F., Ivanshchenko A.V.
*Preparation of hydrogenated, substituted pyrrolo[4,3-b]indoles for treatment of neurodegenerative or autoimmune diseases and allergies by cyclization of phenylhydrazines with pyrrolidinones and subsequent hydrogenation and/or reaction with electrophiles*
WO 2008026965 (2008)

16. Ivashchenko A.A., Frolov E.B., **Tkachenko S.E**., Khvat A.V., Malyarchuk S.V., Mitkin O.D., Okun I.M., Kyselev A.S., Savchuk N.F., Ivanshchenko A.V.
*Preparation of hydrogenated, substituted azepino[4,3-b]indoles for treatment of neurodegenerative or autoimmune diseases and allergies by reduction of azepino[4,3-b]indol-1-ones and subsequent reaction with electrophiles*
WO 2008024029 (2008)

17. Prossnitz E.R., **Tkatchenko S.E**., Revankar C.M., Sclar L.A., Arterburn J.B., Cimino D.F., Oprea T.I., Bologa C-G., Edwards B.S., Kiselyov A., Young S.M.
*Compounds for binding to ERalpha/beta and GPR30, method of treating disease states and conditions mediated through these receptors and identification thereof*
US 2008167334 (2008)

18. Фролов Е.Б., **Ткаченко С.Е**., Хват А.В., Малярчук С.В., Митькин О.Д., Окунь И.М., Савчук Н.Ф., Иващенко А.А., Иващенко А.В.
З*амещенные азепино[4,3-b]индолы, фармацевтическая композиция, способ их получения и применения*
Приоритет 24.08.2006, РФ 2317989 (2008)

19. Иващенко А.В., Ильин А.П., Кисель В.М., Трифеленков А.С., Цирульников С.А., Шкирандо А.М., Чуракова М.В., Ломакина И.О., Потапов В.В., Замалетдинова А.И., **Ткаченко С.Е**., Кравченко Д.В., Хват А.В., Окунь И.М., Киселев А.С.
*Азагетероциклы, фокусированная библиотека, фармацевтическая композиция, способ их получения и применения*
Приоритет12.04.2006, РФ 2318818С1 (2008)

20. Prossnitz E.R., **Tkatchenko S.E**., Revankar C.M., Sclar L.A., Arterburn J.B., Cimino D.F., Oprea T.I., Bologa C-G., Edwards B.S., Kiselyov A., Young S.M.

*Compounds for binding to ERalpha/beta and GPR30, method of treating disease states and conditions mediated through these receptors and identification thereof*
WO 2007019180 (2007)

21. Ivashchenko A.A., **Tkachenko S.E**., Khvat A.V., Mitkin O.D., Okun I.M., Kyselev A.S., Kysil V.M., Savchuk N.F., Ivashchenko A.V.
*Preparation of substituted (aminomethyl)indolecarboxylates as antiviral agents and methods for their production*
WO 2007136300 (2007)

22. Klochkov S.G., Kiseleva E.G., Pavlova V.M., Zefirov N.S., Bachurin S.O., **Tkachenko S.E.**
*Antimetastatic composition*
RU 2308966 C1 (2007)

23. Ivashchenko A.V., Ilyin A.P., Kysil V.M., Trifilenkov A.S., Tsirulnikov S.A., Shkirando A.M., Churakova M.V., Lomakina I.O., Potapov V.V., Zamaletdinova A.I., **Tkachenko S.E**., Kravchenko D.V., Khvat A.V., Okun I.M., Kyselev A.S.
*Azaheterocycles, combinatorial library, focused library, pharmaceutical composition and methods for their preparation from isonitriles, primary amines, and oxo-carboxylates or amino acid derivatives*
WO 2007117180 (2007)

24. Ivashchenko A.V., Kisel V.M., Khvat A.V., Malyarchuk S.V., Okun I.M., **Tkachenko S.E**., Kiselev A.S.
*Methods for preparing combinatory and focused libraries of derivatives of noscapine and using them for pharmaceutical compositions*
RU 2304584 C1 (2007)

25. Ivashchenko A.V., Kysil V.M., Khvat A.V., Malyarchuk S.V., Okun I.M., **Tkachenko S.E**., Kiselev A.S.
*Noscapine derivatives, combinatory and focused library, pharmaceutical composition, methods for the production and the use thereof*
WO 2007133112 (2007)

26. **Tkachenko S.E**., Okun I. M., Rivkees S.A., Kravchenko D.V., Khvat A.V., Ivashchenko A.V.
*Heterocyclic compounds for inhibiting the melanocortin receptor MC2R*
RU 2303597 C1(2007)

27. Ivashchenko A.V., Kravchenko D.V., Loseva M.V., Okun I.M., **Tkachenko S.E.,** Khvat A.V.
*Preparation of 1-oxo-3-(1H-indol-3-yl)-1,2,3,4-tetrahydroisoquinolines, their combinatorial and focused libraries and their protein kinase inhibitory activities*
RU 2302417 C1 (2007)

28. Ivashchenko A.V., Kravchenko D.V., Loseva M.V., Okun I.M., **Tkachenko S.E**., Khvat A.V.
*1-Oxo-3-(1H-indol-3-yl)-1,2,3,4-tetrahydroisoquinolines, methods for the production thereof, combinatoric library and focused library*
WO 2007105989 (2007)

29. Ivashchenko A.V., **Tkachenko S.E**., Okun I. M., Rivkees S.A., Kravchenko D.V., Khvat A.V
*Pharmaceutical composition, methods for the production and the use thereof*
WO 2007133108 (2007)

30. Ivashchenko A.V., Vvedensky V.Y., Il'in A.P., Kysil V.M., Khvat A.V., Kuzovkova Y.A., Kutepov S.A., Dmitrieva I.G., Zolotarev D.A., **Tkachenko S.E**., Okun I.M., Kravchenko D.V., Kobak V.V., Trifilenkov A.S., Mishunina Y.S., Loseva M.V., Rizhova E.A., Parchinsky V.Z., Tsirulnikov S.A., Kyselev A.S.
*Annelated carbamyl-aza-heterocyclic compounds, a focused library, pharmaceutical compositions and methods of preparing the same*
US 2007/0191337 (2007)

31. Иващенко А.А., Лавровский Я.В., Лакнер Ф., Малярчук С.В., Окунь И.М., Савчук Н.Ф., **Ткаченко С.Е.**, Хват А.В.
*Гетероциклические ингибиторы Hh-сигнального каскада, лекарственные композиции на их основе и способ лечения заболеваний, связанных с абберантной активностью Hh-сигнальной системы*
Приоритет 14.12.2007, РФ 2364597 C1 (2007)

32. Il'in A.P., Ivashchenko A.V., Kravchenko D.V., **Tkachenko S.E**., Okun I.M., Loseva M.V., Ryzhova E.A., Parchinskii V.Z., Tsyrul'nikov S.A., Vvedenskii V.Y., Kisel V.M., Khvat A.V., Kiselev A.S.
*Method for preparing a focused library of anellated cabamoylazaheterocycles and pharmaceutical compositions containing them*
**RU** 2281947 C1 (2006)

33. Zhuravel I.A., Ivashchenko A.V., Kovalenko S.N., Borisov A.V., Okun I.M, **Tkachenko S.E**., Chernykh V.P.
*Substituted pyrido[4',3':5,6]pyrano[2,3-d]pyrimidines and combinatorial library of these derivatives with antitumor activity*
RU 2269538 C1 (2006)

34. **Tkachenko S.E**., Khvat A.V., Mitkin O.D., Okun I.M., Kiselev A.S., Kisil V.M., Savchuk N.F., Ivashchenko A.A., Ivashchenko A.V
*Substituted esters of 1H-indol-3-carboxylic acid, pharmaceutical composition, method for their preparing and using*
RU 2323210 (2006)

35. **Tkachenko S.E**., Khvat A.V., Mitkin O.D., Okun I.M., Kiselev A.S., Kisil V.M., Savchuk N.F., Ivashchenko A.A., Ivashchenko A.V.
*Substituted esters of 1,2,3,7-tetrahydropyrrolo[3,2-f][1,3]benzoxazin-5-carboxylic acids, pharmaceutical composition, method for their preparing and using*
RU 2323221 (2008)

36. Фролов Е.Б., **Ткаченко С.Е**., Хват А.В., Малярчук С.В., Митькин О.Д., Савчук Н.Ф., Иващенко А.А., Иващенко А.В.
*Замещенные пирроло[4,3-b]индолы, комбинаторная и фокусированная библиотеки, фармацевтическая композиция, способы их получения и применения*
Приоритет 24.08.2006, RU 2320662 C1 (2006)

37. Иващенко А.В., **Ткаченко С.Е**., Окунь И.М., Савчук Н.Ф., Иващенко А.А.
*Лиганды 5-НТ6 рецепторов, фармацевтическая композиция, способ ее получения и лекарственное средство*
Приоритет 16.11.2006, РФ 2329044 C1 (2006)

38. Dorogov M.V., Solov'ev M.Yu., Kravchenko D.V., **Tkachenko S.E**., Ivashchenko A.V.
*Focused combinatorial library of heterocyclic compounds comprising 2-aminopyridine-3-sulfonic fragment for use as neuroprotectants*
RU 2263667 C1 (2005)

39. Ivashchenko A.V., Vvedenskii V.Y., Il'in A.P., Kysel V.M., Khvat A.V., Kuzovkova Y.A., Dmitrieva I.G., Zolotarev D.A., **Tkachenko S.E**., Okun I.M., Kravchenko D.V., Kobak V.V., Trifilenkov A.S., Loseva M.V., Rizhova E.A., Parchinsky V.Z., Tsirulnikov S.A., Kyselev A.S.
*Annelated carbamoylase-heterocycles, focused library, pharmaceutical compositions and methods for the production and use thereof*
WO 2005105805 (2005)

40. Ivashchenko A.V., Vvedenskii V.Y., Ivanov Y.V., Kysil V.M., Khvat A.V., **Tkachenko S.E**., Okun I.M.
*A preparation of focused library of 1,2-dihydro[2,7]naphthyridine derivatives, useful as mediators of nicotinic receptors*
WO 2005026166 (2005)