

Curriculum Vitae

Jiraporn Tocharus, PhD



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Marital Status married

EDUCATION

2001-2004 Ph.D. (Biological Sciences), Nara Institute of Science and Technology,
Japan
1993-1996 Master of Science (Biochemistry), Chiang Mai University
1998-1992 B.Sc. (Nursing), Chiang Mai University

HONORS AND AWARDS

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PROFESSIONAL APPOINTMENT

2019 - present Associated Professor, Department of Physiology, Faculty of Medicine,
Chiang Mai University, Chiang Mai, Thailand
2011-2018 Assistant Professor, Department of Physiology, Faculty of Medicine,
Chiang Mai University, Chiang Mai, Thailand

PROFESSIONAL LICENSES

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ORGANIZATION AND PARTICIPATION

2004-Present The science society of Thailand

PROFESSIONAL ACTIVITIES

Critical Reviewer of Manuscripts for:

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PRESENTATIONS AT NATIONAL MEETINGS

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PRESENTATIONS AT INTERNATIONAL MEETINGS

September 2013 5th BBBB International Conference: From Drug Discovery and Formulation Strategies To Pharmacokinetics-Pharmacodynamics, Athens, Greece

May 2015 12th Asian Congress of Nutrition, Yokohama, Japan

July 2017 Natural Products in Health, Agro-Food and Cosmetics, Lille, France

INVITED LECTURES AT NATIONAL MEETINGS

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INVITED LECTURES AT INTERNATIONAL MEETINGS

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ACADEMIC ACTIVITIES

Graduate Student's Dissertation Committees

1. Wijitra Chumboatong, B.Sc., Chair of the Master Degree Committee
Topic: Effect of agomelatine on cerebral ischemia and reperfusion injury in rats
(Physiology)
2. Pranglada Jearjaroen, B.Sc., Chair of the Master Degree Committee
Topic: Effect of hexahydrocurcumin on dexamethasone-induced neurodegenerative mouse model
(Physiology)
3. Decha Pinkaew, M.Sc., Chair of the Doctoral Degree Committee
Topic: Neuroprotective effects of di-O-demethylcurcumin in A β _{25,35}- induced neurotoxicity in SK-N-SH cell
(Physiology)

Special Academic Appointments

2011-Present Graduate School Faculty, Chiang Mai University, Chiang Mai, Thailand

RESEARCH GRANT SUPPORT

2015-2016	Research Fund from the National Research Council, Thailand (PI) Project title "Effects of hexahydrocurcumin on the cerebral ischemic/reperfusion injury in rat"
2017-2018	Faculty of Medicine Research Fund (PI) Project title "Effect of tetramethoxyflavanone on cerebral brain damage induced by stress in mice" Project title "Neuroprotective effects of tetramethoxyflavanone against A β -induced apoptosis in cultured SK-N-SH"
2018-2019	Faculty of Medicine Research Fund (PI) Project title "Effect of Hexahydrocurcumin on Dexamethasone-Induced Neurodegenerative Mouse Model"
2019-2020	Faculty of Medicine Research Fund (PI) Project title "Effects of morin on cerebral damage after cerebral Ischemia/Reperfusion in Rat"

2017-2020 The Thailand Research Fund (PI)
Project title “Effect of agomelatine and its underlying mechanism on cerebral ischemia/reperfusion injury in rats”

PREVIOUS GRANT SUPPORT

2011-2014 The Thailand Research Fund and Commission on Higher Education (PI)
Project title “Effect of agomelatine and its underlying mechanism on cerebral ischemia/reperfusion injury in rats”
Chiang Mai University
Project title “The neuroprotective effects of Di-*O*-demethylcurcumin on amyloid beta -induced apoptosis via ER stress in neuronal cells”

2012-2013 The National Research Council of Thailand (PI)
Project title “Neuroprotective of curcuminoid analogs on neurodegeneration in neuronal culture cells”

PATENTS

RESEARCH FIELDS OF INTEREST

Neurodegenerative diseases

PEER REVIEWED ARTICLES

1. Janyou A, Wicha P, Seechamnaturakit V, Bumroongkit K, Tocharus C, Suksamrarn A, **Tocharus J**. Dihydrocapsaicin-induced angiogenesis and improved functional recovery after cerebral ischemia and reperfusion in a rat model. *J Pharmacol Sci* 2020, doi: 10.1016/j.jphs.2020.02.001
2. Chumboatong W, Khamchai S, Tocharus C, Govitrapong P, **Tocharus J**. Agomelatine protects against permanent cerebral ischaemia via the Nrf2-HO-1 pathway. *Eur J Pharmacol* 2020, 874: 173028.
3. Wicha P, **Tocharus J**, Janyou A, Jittiwat J, Chaichompoo W, Suksamrarn A, Tocharus C. Hexahydrocurcumin alleviated blood-brain barrier dysfunction in cerebral ischemia/reperfusion rats. *Pharmacol Rep* 2020, doi: 10.1007/s43440-019-00050-9.
4. Pakdeepak K, Chokchaisiri R, **Tocharus J**, Jearjaroen P, Tocharus C, Suksamrarn A. 5,6,7,4'-Tetramethoxyflavanone protects against neuronal degeneration induced by dexamethasone by attenuating amyloidogenesis in mice. *EXCLI J* 2020, 19: 16-32.
5. Namyen J, Permpoonputtana K, Nopparat C, **Tocharus J**, Tocharus C, Govitrapong P. Protective Effects of Melatonin on Methamphetamine-Induced Blood-Brain Barrier Dysfunction in Rat Model. *Neurotox Res* 2020, doi: 10.1007/s12640-019-00156-1.
6. Pantan R, **Tocharus J**, Nakaew A, Suksamrarn A, Tocharus C. Ethyl Rosmarinate Prevents the Impairment of Vascular Function and Morphological Changes in L-

- NAME-Induced Hypertensive Rats. *Medicina* 2019, 55: doi: 10.3390/medicina55120777.
7. Sivasinprasasn S, Wikan N, **Tocharus J**, Pantan R, Chaichompoo W, Suksamrarn A, Tocharus C. Synergistic effects of the capsaicinoid nonivamide and rosuvastatin on obesity-related endothelial dysfunction in rat fed a high-fat diet. *Phytother Res* 2019, 33: 1815-1826.
 8. Panthiya L, Pantan R, **Tocharus J**, Nakaew A, Suksamrarn A, Tocharus C. Endothelium-dependent and endothelium-independent vasorelaxant effects of titiacorinine 12-O-acetate and mechanisms on isolated rat aorta. *Biomed Pharmacother* 2019, 109: 2090-2099.
 9. Singhrang N, Tocharus C, Thummayot S, Sutheerawattananonda M, **Tocharus J**. Protective effects of silk lutein extract from Bombyx cocoons on β -amyloid peptide-induced apoptosis in PC12 cells. *Biomed Pharmacother* 2018; 103: 582-587.
 10. Thummayot S, Tocharus C, Jumnonpraknon P, Suksamrarn A, **Tocharus J**. Cyanidin attenuates $A\beta_{25,35}$ -induced neuroinflammation by suppressing NF- κ B activity downstream of TLR4/NOX4 in human neuroblastoma cells. *Acta Pharmacol Sin* 2018; doi: 10.1038/aps.2017.203.
 11. Wicha P, **Tocharus J**, Janyou A, Jittiwat J, Changtam C, Suksamrarn A, Tocharus C. Hexahydrocurcumin protects against cerebral ischemia/reperfusion injury, attenuates inflammation and improves antioxidant defense in a rat stroke model. *PLoS One* 2017; 12:e0189211.
 12. Janyou A, Wicha P, Jittiwat J, Suksamrarn A, Tocharus C, **Tocharus J**. Dihydrocapsaicin attenuates blood brain barrier and cerebral damage in focal cerebral ischemia/reperfusion via oxidative stress and inflammatory. *Sci Rep* 2017; 7(1): 10556.
 13. Jenwitheesuk A, Park S, Wongchitrat P, **Tocharus J**, Mukda S, Shimokawa I, Govitrapong P. Comparing the effects of melatonin with caloric restriction in the hippocampus of aging mice: involvement of sirtuin1 and FOXOs pathway. *Neurochem Res* 2018; 43:144-152.
 14. Jenwitheesuk A, Boontem P, Wongchitrat P, **Tocharus J**, Mukda S, Govitrapong P. Melatonin regulates the aging mouse hippocampal homeostasis via the sirtuin1-FOXO1 pathway. *EXCLI J* 2017; 16:340-353.
 15. Jumnonpraknon P, Sivasinprasasn S, Govitrapong P, Tocharus C, **Tocharus J**. Activation of melatonin receptor (MT1/2) promotes P-gp transporter in methamphetamine-induced toxicity on primary rat brain microvascular endothelial cells. *Toxicol In Vitro* 2017; 41: 42-48.
 16. Tungkum W, Jumnonpraknon P, Tocharus C, Govitrapong P, **Tocharus J**. Melatonin suppresses methamphetamine-triggered endoplasmic reticulum stress in C6 cells glioma cell lines. *J Toxicol Sci* 2017; 42: 63-71.
 17. Chumboatong W, Thummayot S, Govitrapong P, Tocharus C, Jittiwat J, **Tocharus J**. Neuroprotection of agomelatine against cerebral ischemia/reperfusion injury through an antiapoptotic pathway in rat. *Neurochem Int* 2017; 102:114-122.

18. Sivasinprasasn S, Pantan R, Thummayot S, **Tocharus J**, Suksamrarn A, Tocharus C. Cyanidin-3-glucoside attenuates angiotensin II-induced oxidative stress and inflammation in vascular endothelial cells. *Chem Biol Interact* 2016; 260:67-74.
19. Thummayot S, Tocharus C, Suksamrarn A, **Tocharus J**. Neuroprotective effects of cyanidin against Ab-induced oxidative and ER stress in SK-N-SH cells. *Neurochem Int* 2016; 101:15-21.
20. Pantan R, **Tocharus J**, Phatsara M, Suksamrarn A, Tocharus C. Synergistic effect of atorvastatin and cyanidin-3-glucoside against angiotensin II-mediated vascular smooth muscle cell proliferation and migration through MAPK and PI3K/Akt pathways. *Arch Pharm Res* 2016;
21. Jumnonpraknon P, Govitrapong P, Tocharus C, **Tocharus J**. Inhibitory effect of melatonin on cerebral endothelial cells dysfunction induced by methamphetamine via NADPH oxidase-2. *Brain Res* 2016; 1650:84-92.
22. Jumnonpraknon P, Govitrapong P, Tocharus C, **Tocharus J**. Melatonin promotes blood-brain barrier integrity in methamphetamine-induced inflammation in primary rat brain microvascular endothelial cells. *Brain Res* 2016; 1646:182-192.
23. Pantan R, **Tocharus J**, Suksamrarn A, Tocharus C. Synergistic effect of atorvastatin and cyanidin-3-glucoside on angiotensin II-induced inflammation in vascular smooth muscle cells. *Exp Cell Res* 2016; 342: 104-112.
24. Wicha P, **Tocharus J**, Nakaew A, Pantan R, Suksamrarn A, Tocharus C. Ethyl rosmarinate relaxes rat aorta by an endothelium-independent pathway. *Eur J Pharmacol* 2015; 766: 9-15.
25. Moohammadaree A, Changtam C, Wicha P, Suksamrarn A, **Tocharus J**, Tocharus C. Mechanisms of vasorelaxation induced by hexahydrocurcumin in isolated rat thoracic aorta. *Phytother Res* 2015; 29: 1806-1813.
26. Pinkaew D, Changtam C, Tocharus C, Govitrapong P, Jumnonpraknon P, Suksamrarn A, **Tocharus J**. Association of neuroprotective effect of Di-O-demethylcurcumin on A β ₂₅₋₃₅-induced neurotoxicity with suppression of NF-kb and activation of Nrf2. *Neurotox Res* 2016; 29: 80-91.
27. Janyou A, Changtam C, Suksamrarn A, Tocharus C, **Tocharus J**. Suppression effects of O-demethyldemethoxycurcumin on thapsigargin triggered on endoplasmic reticulum stress in SK-N-SH cells. *Neurotoxicology* 2015; 50:92-100.
28. Jumnonpraknon P, Govitrapong P, Tocharus C, Pinkaew D, **Tocharus J**. Melatonin protect methamphetamine-induced neuroinflammation through NF-kB and Nrf2 pathways in glioma cell line. *Neurochem Res* 2015; 40:1448-1456.
29. Hasan MZ, Ikawati M, **Tocharus J**, Kawaichi M, Oka C. Abnormal development of placenta in HtrA1-deficient mice. *Dev Biol* 2015; 397:89-102.
30. Pinkaew D, Changtam C, Tocharus C, Thummayot S, Suksamrarn A, **Tocharus J**. Di-O-demethylcurcumin protects SK-N-SH cells against mitochondrial and endoplasmic reticulum-mediated apoptotic cell death induced by A β ₂₅₋₃₅. *Neurochemistry International* 2015; 80:110-119.

CONFERENCE SHORT PAPERS AND ABSTRACTS

Oral presentation

1. Satchakorn Khamchai, Apichart Suksamrarn, **Jiraporn Tocharus**. Morin attenuates cerebral damage in cerebral ischemia/reperfusion. The International Conference on Innovations of Functional Foods in Asia ,22nd-24th January 2018, Phayao, Thailand.
2. Kanet Pakdeepak, Ratchanaporn Chockchaisiri, Chainarong Tocharus, Apichart Suksamrarn, **Jiraporn Tochaurs**. 5,6,7,4-tetramethoxyflavanone from *Chromolaena odoratum* regulate the amyloid precursor protein-cleaving secretase expression in stress-induced mice. The International Conference on Innovations of Functional Foods in Asia, 22nd-24th January 2018, Phayao, Thailand.
3. Pranglada Jearjaroen, Kanet Pakdeepak, Chainarong Tocharus, Apichart Suksamrarn, **Jiraporn Tocharus**. Hexahydrocurcumin modulates amyloid-b precursor protein processing in stress-induced cognitive impairment in mice. The International Conference on Innovations of Functional Foods in Asia, 22nd-24th January 2018, Phayao, Thailand.

Poster presentation

1. Naruemon Wikan, **Jiraporn Tocharus**, Sivanan Sivasinprasasn, Aphisek Kongkaew, Waraluck Chaichompoo, Apichart Suksamrarn, Chainarong, Tocharus. Capsaicinoid Nonivamide ameliorates hepatic injury on non-alcoholic fatty liver disease in rat model. The 9th FAOPS Congress, 28th-31th March 2019, Kobe, Japan.
2. Jittiporn Wongpun, Ratchanaporn Chockchaisiri, **Jiraporn Tocharus**, Apichart Suksamrarn, Chainarong, Tocharus. Festidinol: Potential effect on preventing neurodegeneration in mice. The 9th FAOPS Congress, 28th-31th March 2019, Kobe, Japan.
3. Teera Chanmanee, Piyarat Govitrapong, **Jiraporn Tocharus**, Chainarong, Tocharus. Effect of agomelatine on neurogenesis in D-galactose-induced brain aging. The 9th FAOPS Congress, 28th-31th March 2019, Kobe, Japan.
4. Kanet Pakdeepak, Ratchanaporn Chockchaisiri, Chainarong, Tocharus, Pranglada Jearjaroen, Apichart Suksamrarn, **Jiraporn Tocharus**. Effects of 5,6,7,4-TMF on neurogenesis and neurogenesis in dexamethasone-induced mice. The 9th FAOPS Congress, 28th-31th March 2019, Kobe, Japan.
5. Wijitra Chumboatong, Chainarong Tocharus, Piyarat Govitrapong, **Jiraporn Tocharus**. Agomelatine protects against on permanent cerebral ischemia model

- through Nrf2-HO-1 pathway. The 9th FAOPS Congress, 28th-31th March 2019, Kobe, Japan.
6. **Jiraporn Tocharus**, Adchara Janyou, Chainarong, Tocharus, Apichart Suksamrarn. Dihydrocapsaicin improves functional recovery after cerebral ischemia and reperfusion in rat model. The 9th FAOPS Congress, 28th-31th March 2019, Kobe, Japan.
 7. Jirakhamoln Sengking, **Jiraporn Tocharus**, Ratchanaporn Chokchaisiri, Apichart Suksamrarn, Chainarong, Tocharus, The protective effect of neferine on permanent ischemic brain injury in rats. The 9th FAOPS Congress, 28th-31th March 2019, Kobe, Japan.
 8. Luckika Panthiya, **Jiraporn Tocharus**, Rungusa Pantan, Archawin Nakaew, Apichart Suksamrarn, Chainarong, Tocharus The vasodilatory effect of Tiliacorinine 12'-o-acetate in rat aorta. The 9th FAOPS Congress, 28th-31th March 2019, Kobe, Japan.
 9. Sivanan Sivasinprasasn, Naruemon Wikan, Apichart Suksamrarn, **Jiraporn Tocharus**, Chainarong, Tocharus. Effects of capsaicinoid noivamide on obesity-related vascular dysfunction in obese rat. The 9th FAOPS Congress, 28th-31th March 2019, Kobe, Japan.
 10. Amnart Onsa-Ard, **Jiraporn Tocharus**, Chainarong, Tocharus, Apichart Suksamrarn. Neferine selectively alters LPS-induced inflammatory responses in RAW 2647 macrophages. The 9th FAOPS Congress, 28th-31th March 2019, Kobe, Japan.
 11. Kanet Pakdeepak, Ratchanaporn Chockchaisiri, Chainarong, Tocharus, Apichart Suksamrarn, **Jiraporn Tocharus**. 5,6,7,4-Tetramethoxyflavanone attenuated memory impairment in stress-induced mice. The 9th International Graduate Research Conference, 17th-18th May 2018, The Empress International Convention Center, Chiang Mai, Thailand. (1st poster presentation award)
 12. Pichaya Jumnonprakhon, Ratchanaporn Chokchaisiri, Sirinthorn Thummayot, Apichart Suksamrarn, Chainarong Tocharus, **Jiraporn Tocharus**. Elimination of cellular senescence in neuronal cell by 5,6,7,4'-tetramethoxyflavanone. The International Conference on Innovations of Functional Foods in Asia, 22nd-24th January 2018, Phayao, Thailand.

BOOK CHAPTERS

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