

Indonesian Journal of Cancer Chemoprevention

Editor in Chief

Dr. Arief Nurrochmad, M.Si., M.Sc., Apt.

Vice

Dr. Agung Endro Nugroho, M.Si., Apt.

Secretary

Dr.rer.nat. Rr. Endang Lukitaningsih, M.Si., Apt.

Editors

Dr.Med.dr. Indwiani Astuti

Dr. Erna Prawita Setyowati, M.Si., Apt.

Dr. Muhammad Da'i, M.Si., Apt.

Board Reviewing Editors

Prof. Dr. Edy Meiyanto, M.Si., Apt.

(Cancer Chemoprevention Research Center, Faculty of Pharmacy Universitas Gadjah Mada, Yogyakarta)

Prof. drg. Ferry Sandra, D.D.S., Ph.D., L.F.I.B.A.

(Stem Cell and Cancer Institute, Jakarta, Indonesia)

Prof. Dr. Sugiyanto, SU., Apt.

(Faculty of Pharmacy, Universitas Gadjah Mada, Yogyakarta)

Prof. Dr. Sukardiman, SU., Apt.

(Faculty of Pharmacy, Universitas Airlangga, Surabaya)

Prof. Dr. Adek Zamrud Adnan, M.Sc., Apt.

(Faculty of Pharmacy, Universitas Andalas, Padang)

Prof. Dr. Sismindari, SU., Apt.

(Faculty of Pharmacy, Universitas Gadjah Mada, Yogyakarta)

Prof. Masashi Kawaichi, MD., PhD.

(Laboratory of Gene Function in Animals, Graduate School of Biological Sciences, Nara Institute of Science and Technology, Nara, Japan)

Prof. Hiroshi Itoh, Pharmacist., PhD.

(Laboratory of Signal Transduction, Graduate School of Biological Sciences, Nara Institute of Science and Technology, Nara, Japan)

Business Manager

Adam Hermawan, M.Sc., Apt.

Muthi Ikawati, M.Sc., Apt.

Lay outer and setting

Gatot Sadewo, AMd.

Editorial Office

Faculty of Pharmacy, Universitas Gadjah Mada Yogyakarta

Sekip Utara, Yogyakarta, Indonesia 55281

Telp. (+62-274) 6492662, Fax.(+62-274) 543120

Email : iscc2010@ymail.com

Bank : Bank BNI

Branch : Cabang UGM, Yogyakarta

Account No. : 0205640096

Account Name : Muthi Ikawati

Published by

Indonesian Society for Cancer Chemoprevention (ISCC)

Cover Picture :

"Cell morphological change..."

(see Susilowati et al., p 67-73)

INDONESIAN JOURNAL OF CANCER CHEMOPREVENTION

ARTICLES

- Cyclosporine A and Fk506 As Potent Inhibitors of *Streptococcus intermedius* Intermedilysin-Induced NFAT-I Activation
(Heni Susilowati, Hirohiko Okamura, Katsuhiko Hirota, Kaya Yoshida, Atsushi Tabata, Hideaki Nagamune, Tatsuji Haneji, Yoichiro Miyake) 67-73
- Fatty Acids Composition of Red and Purple Pomegranate (*Punica granatum* L) Seed Oil
(Hartati Soetjipto, Murda Pradipta and KH Timotius) 74-77
- Combination of *Solanum nigrum* L. Herb Ethanolic Extract And Doxorubicin Performs Synergism on T47D Breast Cancer Cells
(Anindyajati, Sarmoko, Dyaningtyas D. P. Putri, Adam Hermawan, and Edy Meiyanto) 78-84
- Antioxidant Activity of *Garcinia cf Bancana* Miq
(Sri Hartati, Triyem and Herry Cahyana) 85-91
- Secretion of Indoleamine 2,3-Dioxygenase, An Immunomodulatory Substance, By Adipose-Derived Mesenchymal Stem Cell
(Dian R. Laksmiawati, Caroline Tan Sardjono , Jeanne A.Pawitan, Mohammad Sadikin, Ferry Sandra) 92-98
- Apoptosis And Antioxidant Activities of *Catharanthus rosues* [L] G.Don Extract on Breast Cancer Cell Line
(Wahyu Widowati, Tjandrawati Mozef, Chandra Risdian, Hana Ratnawati, Susy Tjahyani, Ferry Sandra) 99-107
- Molecular Docking of Lunacridine from *Lunasia amara* To DNA : Its Inhibition and Interaction Study Correlated with The Cytotoxic Activity On P388 Murine Leukemia Cells
(M. Sulaiman Zubair, Subehan) 108-117
- Chemopreventive Efficacy of Ginger Extract (*Zingiber officinale*)
(Harliansyah, W.N. Wan Zurinah , M.Y.Yasmin Anum, M. Noor Azian) 118-123
- Ethanolic extract of *Moringa oleifera* l. Increases Sensitivity Of WiDr Colon Cancer Cell Line Towards 5-Fluorouracil
(Kholid Alfian Nur, Herwandhani Putri, Fany Mutia Cahyani, Aulia Katarina, Ratna Asmah, Susidarti, Edy Meiyanto) 124-128
- QSAR analysis of Rocaglamide Derivatives Cytotoxic Activities Using Lfer Hansch Model
(Firdayani, Susi Kusumaningrum, Doddy Irawan Setyo Utomo, Agung Eru Wibowo, Chaidir) 129-134

Preface

Indonesian Journal of Cancer Chemoprevention (IJCC) established in 2010 is a peer reviewed journal publishing original articles, reports, and reviews on all aspects cancer chemoprevention, including experimental and clinical pharmacology, especially concerning anti-oxidants, anti-aging, anti-inflammation, anti-angiogenesis, and anti-carcinogenesis, cancer detection and also applications of stem cell technology, immunology research especially on immunomodulation, *in vitro* and *in silico* exploration on chemoprevention mechanism, screening of natural and synthetic chemopreventive agents, cancer biology, pharmacology and toxicology of cancer, and cancer therapeutic that published in English by Indonesian Society for Cancer Chemoprevention.

The current issue is contains ten articles selected from International Seminar on Chemoprevention for Health Promotion and Beauty. Susilowati et al studied that Cyclosporine A (CsA) and FK506 as potent inhibitors of streptococcus intermedius intermediysin-induced NFAT-I activation That study finding that CsA and FK506 may act as potent inflammation control agents in *S. intermedius* ILY-infected cells. Sutjipto et al investiagted to determine the content and composition of fatty acid in seed oil of red and purple pomegranate (*Punica granatum* L). Anindyajati et al examine the cytotoxic activity of leunca (*S. nigrum* L.) herb ethanolic extract (LEE) alone and its combination with doxorubicin. Hartati et al studied the antioxidant of *Garcinia cf bancana* miq using DPPH method. The study of Laksmiawati et al demonstrated the potential application of adipose-derived MSC in the immunomodulatory strategy for allogenic transplantation. Widowati et al examined the apoptosis and antioxidant activities of *Catharanthus rosues* [L] G.Don extract on breast cancer cell line. Zubair et al examine the *in silico* study of molecular docking of lunacridine from *Lunasia amara* to DNA: its inhibition and interaction study correlated with the cytotoxic activity on p388 murine leukemia cells. Herliansyah et al reported that ginger extract has chemopreventive properties against hepatoma cells HepG2 and HLE by inhibiting cellular proliferation and inducing apoptosis. Nur et al reported that the ethanolic extract of *Moringa oleifera* L. increases sensitivity of WIDR colon cancer cell line towards 5-fluorouracil. Firdayani et al. repoted QSAR analysis of Rocaglamide derivatives cytotoxic activities using LFER Hansch model.

We wish to thank the authors who contributed to this issue. We are grateful to the Organizing Committee and to our Sponsors for their contribution to meeting. We would like to express our special thanks to Prof. Edy Meiyanto, the President of the Indonesian Society for Cancer Chemoprevention for his encouragement and support needed to organize the meeting and this journal. Publication of this issue of the Indonesian Journal of Cancer Chemoprevention was financed by Indonesian Society for Cancer Chemoprevention.

Editor in Chief,

Arief Nurrochmad, Ph.D

AIMS

Indonesian Journal of Cancer Chemoprevention is a tri-annual international journal devoted to the publication of articles on all aspects cancer chemoprevention including experimental and clinical pharmacology, especially concerning anti-oxidants, antiaging, anti-inflammation, anti-angiogenesis, and anti-carcinogenesis; cancer detections and also applications of stem cell technology; Immunology research, especially on immunomodulation; In vitro and in silico exploration on chemoprevention mechanisms; Screening of natural (plants, marine natural products, etc.) and synthetic chemopreventive agents; Cultivation of chemopreventive plants and development of herbal dosage forms for chemoprevention; and Development of herbal cosmetics formulation.

INSTRUCTIONS TO THE AUTHORS

Submission

Abstract was written in 1 space, one column, the manuscript 1.5 space with 1 column format, the overall amount of approximately 10 pages, with top and left of the format is 4 cm, right and bottom 3 cm from the edge of quarto paper (A4), must be clear for easy reading.

The manuscript must be written in clear and concise English and should comprise : (a) Title page; (b) abstract; (c) Keywords; (d) Background; (e) Materials and Methods; (f) Results; (g) Discussion; (h) Conclusion (i) Acknowledgement, if any; (j) References. Appropriate Results and Discussion may be combined.

The manuscript

Title page

Title must be concise and informative.

First Author¹*, Second Author, etc, (given name followed by surname), Times New Roman 12 pt, bold, double space, centered

¹Institutional affiliation(s), Times New Roman 12 pt, double space, centered

*Corresponding author: contact of the corresponding author, affiliation, address (optional), phone number (optional), city, country, email address

Abstract and keywords

Write the abstract using single spacing. The abstract provides a clear and concise summary of the information in an article. The abstract should include a background for the work, a brief description of the methods, a summary of the results, and a conclusion. They are indicative only and will not be used for citation purposes. The abstract should be between 200 and 300 words.

Key words: provide a list of a most 5 key words for the abstract, separated by commas (,)

Introduction

The *introduction* should state the purpose of the paper. It should not review the subject extensively

Material and Methods

Materials and Methods should be described in detail sufficient to enable the work to be repeated, and suppliers of materials and equipment given, if necessary.

Results

Results should be presented in logical sequence, with tables and illustration as appropriate.

Discussion

Discussion should emphasize the implication of the findings, their limitations, and relevance to other studies. It should not be a recapitulation of the *results*.

Conclusion

Acknowledgment

Fill this with the acknowledgement section of your manuscript if any

References

The Harvard System is used. References in the text should be quoted in the following for single, two or more than two authors respectively: King (2000), Hanahan and Weinberg (1999), Choi et al. (2005). Multiple papers referred to together in the text should be given in chronological order.

The references should be listed alphabetically at the end of the paper. The journal titles should be abbreviated to conform to the style of Index Medicus. The layout should be as follows.

for journals

Chen, Y. Shen, S., and Lin, H., 2003, Rutinoside at C7 attenuates the apoptosis-inducing activity of flavonoids, *Biochem. Pharmacol.*, **66**(5), 1139–1150.

for books

Bruton, L. Lazo, J. S. and Parker, K. L., 2005, *Goodman & Gilman's the pharmacological basis of therapeutics*. 11th ed. Lange: McGrawHill.

for chapter in books

Smith, J., 1975, A source of information. In: W. Jones, ed. 2000, *One hundred and one ways to find information about health*. Oxford: Oxford University Press. pp. 44-68.

for proceedings

Adina, A.B. Handoko, F.F. Setyarini, I.I. Septisetyani, E.P. Riyanto, S., and Meiyanto, E., 2008. Ethanolic extract *Citrus aurantifolia* increase sensitivity MCF7 cell line towards Doxorubicin, *Proceding*, Kongres Ilmiah ISFI ke-16, Yogyakarta, ISBN:978-979-95107-6-2, pp. 55-629, 11 Agustus.

for official documents

Division of Drugs & Toxicology, 1994, *Drug Evaluation Annual*, New York: American Medical Association

Without author

Cancer in South Africa [editorial], 1994, *S Afr Med J*, **84**, 15-20.

Tables and figure

For each table and figures, provide a detail legend explaining the content of the table or figure