# CURRICULUM VITAE

| **A. BUTIR-BUTIR PERIBADI** ***(Personal Details)*** | | | |
|---|---|---|---|
| Nama Penuh *(Full Name)* | **YAYA RUKAYADI** | | Gelaran *(Title):* ***Assoc. Prof. Dr.*** |
| No. MyKad / No. Pasport *(Mykad No. / Passport No.)* | Warganegara *(Citizenship)* **INDONESIA** | Bangsa *(Race)* **MELAYU SUNDA** | Jantina *(Gender)* **MALE** |
| Jawatan *(Designation)* | **PENSYARAH** | Tarikh Lahir *(Date of Birth)* | |

| Alamat Semasa *(Current Address)* | Jabatan/Fakulti *(Department/Faculty)* | E-mel dan URL *(E-mail Address and URL)* |
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| **103, Blok K, KMR ONE PUTRA RESIDENCE, 43400 UPM Serdang, Selangor Darul Ehsan. Malaysia**<br>**Tel: 012-245-0048 or 01112307964** | **Department of Food Science, Faculty of Food Science and Technology, Universiti Putra Malaysia**<br>**Tel: 03-8946-8519**<br>**Fax: 038942-3552** | **E-mail: yaya_rukayadi@upm.edu.my and yr32@yahoo.com**<br>**URL: http://www.food.upm.edu.my/**<br>**H/P:012-254-0048** |

| **B. KELAYAKAN AKADEMIK** ***(Academic Qualification)*** | | | |
|---|---|---|---|
| Nama Sijil / Kelayakan *(Certificate / Qualification obtained)* | Nama Sekolah Institusi *(Name of School / Institution)* | Tahun *(Year obtained)* | Bidang pengkhususan *(Area of Specialization)* |
| **Ph.D** | **Bogor Agricultural University (IPB) - Indonesia** | **1998** | **Microbiology** |
| **Master** | **Bogor Agricultural University (IPB) - Indonesia** | **1995** | **Microbiology** |
| **Sarjana (Bachelor)** | **Bandung University of Education - Indonesia** | **1990** | **Biology Education** |

| **C. KEMAHIRAN BAHASA** *(Language Proficiency)* | | | | | |
|---|---|---|---|---|---|
| Bahasa / *Language* | Lemah *Poor (1)* | Sederhana *Moderate (2)* | Baik *Good (3)* | Amat Baik *Very good (4)* | Cemerlang *Excellent (5)* |
| English | | | | V | |
| Bahasa Melayu | | | V | | |
| Chinese | | | | | |
| Lain-lain *(other): Korean* | | | V | | |
| Bahasa Indonesia | | | | | V |

## D. PENGALAMAN SAINTIFIK DAN PENGKHUSUSAN
***(Scientific experience and Specialisation)***

| *Organization* | *Position* | *Start Date* | *End Date* | *Expertise* |
|---|---|---|---|---|
| Biopharmaca Research Center – Bogor Agricultural University, IPB, Indonesia | Consultant | January 2006 | August 2011 | Industrialization of medicinal plants |
| Faculty of Pharmacy, University Padjadjaran Bandung, Indonesia | Consultant | January 2008 | August 2011 | Scientific writing for international publication |
| Scottish Agricultural College, University of Edinburgh, Scotland | Research Attachment | September 1999 | December 1999 | Biocontrol for plant disease |
| Marine Biological Laboratory (BML), Woods Hole, MA, USA | Course Attachment | June 1999 | August 1999 | Microbial Diversity |
| PT. Inagro – Indonesia Agro Industri | Consultant | January 1996 | December 1997 | Electrophoresis and DNA Profiling |
| University California at Berkeley, USA | Research Attachment | June 1996 | October 1996 | Transposon Mutagenesis |

## E. PEKERJAAN *(Employment)*

| Majikan */ Employer* | Jawatan */ Designation* | Jabatan / *Department* | Tarikh lantikan / *Start Date* | Tarikh tamat / *Date Ended* |
|---|---|---|---|---|
| Universiti Putra Malaysia (UPM) | Pensyarah | Dept. of Food Science, Faculty of Food Science and Technology | September 19, 2011 | September 18, 2016 |
| Yonsei University, Korea | Research Professor | Dept. of Biotechnology, College of Life Sciences and Biotechnology | March 2008 | February 2011 |
| Yonsei University, Korea | Senior Researcher | Dept. of Biotechnology, College of Engineering | March 2006 | February 2008 |
| Yonsei University, Korea | Researcher | Dept. of Biotechnology, College of Engineering | January 2003 | February 2006 |
| Yonsei University, Korea | Postdoc | Bioproducts Research Center (BRC) | January 2001 | December 2002 |
| Yonsei University, Korea | Postdoc | Bioproducts Research Center (BRC) | January 2000 | December 2000 |
| Bogor Agricultural University (IPB) Indonesia | Researcher | Inter University Center for Biotechnology | 19-07-1992 | 28-12-1998 |
| Medan State University (UNIMED), Indonesia | Lecturer | Department of Biology Education | September 1991 | July 1992 |

## F. ANUGERAH DAN HADIAH *(Honours and Awards)*

| *Name of awards* | *Title* | *Award Authority* | *Award Type* | *Year* |
|---|---|---|---|---|
| *Academic Awards* | Pensyarah Cemerlang | Univeriti Putra Malaysia | National | 2015 |
| | Graduate Student Fellowship | Team Management Program Doctor (TMPD)- Indonesia | National | 1992-1998 |
| | Overseas Internship for Graduate Student | Project University Research for Graduate Education (URGE)-The Indonesian Ministry of High Education | National | 1996 |
| | Carl-Zeiss Award | Marine Biological Laboratoty for Microbial | International | 1999 |

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| | | Diversity Summer Course, Woods Hole, MA, USA. | | |
| | Visit in Higher Education Link Program – SAC - University of Edinburgh | British Council/Department for International Development (DFID), United Kingdom (UK). | International | 1999 |
| | Travel Grand | 7th International Symposium on the Microbiology of the Aerial Plant Surfaces. University of California at Berkeley, CA, USA | International | 2000 |
| | Bioproducts Research Fellowships | Bioproducts Research Center (BRC)-Yonsei University, Korea | International | 2000 |
| | ASEAN Post-Doctoral Fellowships | Korean Science and Engineering Foundation (KOSEF), Korea. | International | 2001-2003 |
| | BK21 – Brain of Korea Project | Yonsei Biomolecule Research Initiative (YBRI)-Yonsei University, Korea | International | 2006-2011 |
| *Non-Academic Awards* | Received Honorary Citizenship of Korea (Seoul) | The Seoul Metropolitan Government, Republic of Korea. | International | 2007 |
| *Awards of Merit* | | | | |

## G. SENARAI PENERBITAN (Sila masukan nama pengarang, tajuk, nama jurnal, jilid, muka surat dan tahun diterbitkan) *(List of publications – author (s), title, journal, volume, page and year published)*

*Journal*

**75.** Raja Mazlan, R.N.A., Zakaria, M.P.M, **Rukayadi, Y**., (2016), Antimicrobial activity of fingerroot [*Boesenbergia rotunda* (L.) Mansf. A.] extract against *Streptococcus mutans* and *Streptococcus sobrinus*, *Journal of Pure and Applied Microbiology*, Volume 10 (3), pp 1755-1761.

**74.** S.A. Mat, I.S. Mohd Daud, M.H. Mohamad Rojie, N. Hussain and **Y. Rukayadi**, (2016), Effects of *Candida* sp. and *Blastobotrys* sp. starter on fermentation of cocoa (*Theobroma cacao* L.) beans and its antibacterial activity. *Journal of Pure and Applied Microbiology*, Volume. 10(4), pp. 2501-2510.

**73.** Rahman, M.A.H., Lau, K.Y., Rukayadi, Y., (2016), Antibacterial activity of fingerroot [*Boesenbergia rotunda* (L.) Mansf. A.] extract against acne-inducing bacteria, *Research Journal of Pharmaceutical, Biological and Chemical Science*, Volume 7 (6), pp 2157 – 2163.

**72.** Elexson, N., **Rukayadi, Y**., Nakaguchi, Y., Nishibuchi, M., Son, R., (2016). Evaluation of cloves (*Syzygium aromaticum*) against antibiotics resistant *Vibrio parahaemolyticus* on seafood, *International Food Research Journal*, Volume 23 (5), pp 2229-2233.

**71.** Abd Karim, N.A., Ibrahim, M.D., Kntayya, S.B., **Rukayadi, Y**., Abd Hamid, H., Abdull Razis, A.F., (2016), *Moringa oleifera* Lam: Targeting chemoprevention, *Asian Pacific Journal of Cancer Prevention*, 17, pp 3675-3686.

**70**. Voon W.W.Y, Ghali NA, **Rukayadi Y** and Meor Hussin AS. 2016. Isolation and identification of biocellulose-producing bacterial strains from Malaysian acidic fruits. Letter in Applied Microbiology 62(5):428-433. doi: 10.1111/lam.12568.

**69.** Zulfa Z, Chia CT and **Rukayadi Y**. 2015. *In vitro* antimicrobial activity of *Cymbopogon citratus* (lemongrass) extracts against selected foodborne pathogens. International Food Research Journal). 23(3): 1262-1267.

**68.** Santhanam, R.K., Ahmad, S., Abas, F., Ismail, I.S., Rukayadi, Y., Akhyar, T., Shaari, K., (2016), Bioactive constituents of *Zanthoxylum rhetsa* bark and its cytotoxic potential against B16-F10 melanoma cancer and normal human dermal fibroblast (HDF) cell lines, *Molecules*, 21, pp. 652-665.

**67.** Isa T, Zakaria ZAB, **Rukayadi Y**, Hezmee MNM, Jaji AZ, Imam MU, Hammadi NI and Mahmood SK. 2016. Antibacterial Activity of Ciprofloxacin-Encapsulated Cockle Shells Calcium Carbonate (Aragonite) Nanoparticles and Its Biocompatability in Macrophage J774A.1. International Journal of Molecular Science 17, 713-730; doi:10.3390/ijms17050713.

**66.** Saidykhan L, Abu Bakar MZ, **Rukayadi Y**, Kurad AU, and Yazane LS. 2016**.** Development of

nanoantibiotic delivery system using cockle shell-derived aragonite nanoparticles for treatment of osteomyelitis. International Journal of Nanomedicine 11: 661 – 673.

**65.** Soerya D. M., **Rukayadi Y**, Ismail IS, Mujahidin D and Syah YM. 2016. Inhibitory properties of panduratin A and 4-hydroxypanduratin A isolated from *Kaempferia pandurata* against some pathogenic bacteria. *Current Topics in Toxicology*, Volume 11. Pp. 25-31.

**64.** Samuel, A.D., Shaari, K., Kassim, N.K., Rukayadi, Y., Akhtar, M.T., (2015). Bioassay-guide isolation of anticandidal constituents from the stem and bark woods of *Albizia myriophylla* Benth. *Medicinal Plants, Volume* 7 (4), pp 284-291.

**63.** Lew KF, Goh GL, Son R and **Rukayadi Y**. 2015. Effect of Javanese turmeric (*Curcuma xanthorrhiza* Roxb.) extract on natural microflora of oyster mushroom (*Pleurotus sajur-caju*) and its sensory acceptability. International Food Research Journal 22(6): 2446-2451.

**62.** Yusoff NAH, Sanuan FM and **Rukayadi Y**. 2015. *Cosmos caudatus* Kunth. extract reduced number of microflora in oyster mushroom (*Pleurotus ostreatus*). International Food Research Journal 22 (5): 1837 - 1842.

**61.** Mahazar NH, Sufian NF, Meor Hussin AS, Norhayati H and **Rukayadi Y**. 2015. *Candida* sp. as a starter culture for cocoa (*Theobroma cacao* L.) beans fermentation. International Food Research Journal 22 (5): 1783 - 1787.

**60.** Sylvester WS, Son R, Liew KF and **Rukayadi Y**. Antibacterial activity of Java turmeric (*Curcuma xanthorrhiza* Roxb.) extract against *Klebsiella pneumoniae* isolated from several vegetables. International Food Research Journal 22 (5): 1770 - 1776.

**59.** Najwa MS, **Rukayadi Y**, Ubong A, Loo YY, Chang WS, Lye YL, Thung TY, Aimi SA, Malcomlm TTH, Goh SG, Kuan CH, Yoshitsugu N, Nishibuchi M and Son R. 2015. Quantification and antibiotic susceptibility of *Salmonella* spp., *Salmonella* Enteritidis and *Salmonella* Typhymurium in raw vegetables (*ulam*). International Food Research Journal 22 (5): 1761 - 1769.

**58.** Yusof NA, Isha A, Ismail IS, Khatib A, Shaari K, Abas F and **Rukayadi Y**. 2014. Infrared–metabolomics approach in detecting changes in *Andrographis paniculata* metabolites due to different harvesting ages and times. Journal of the Science of Food and Agriculture 95 (12): 2533 – 2543. DOI 10.1002/jsfa.6987

**57.** Zakaria MPM, Abas F and **Rukayadi Y**. 2015. Effects of *Myristica fragrans* Houtt. (Nutmeg) extract on chemical characteristic of raw beef during frozen storage. International Food Research Journal 22 (3): 902 - 909.

**56.** Lau KY and **Rukayadi Y.** 2015. Screening of tropical medicinal plants for sporicidal activity. International Food Research Journal 22 (1): 415 - 419.

**55.** Yusoff NAH, Noor NF and Rukayadi Y. 2015. Effects of Cosmos *caudatus* Kunth. (*Ulam raja*) extract on microflora in raw chicken meat. International Journal of Current Microbiology and Applied Sciences 4(2): 426-435.

**54.** Widayanti N, **Rukayadi Y**, Hakim EH, Ruslan K and Syah YM. 2014. Antifungal activity of lignans isolated from *Phyllanthus myrtifollus* Moon. against *Fusarium oxysporum*. Current Topics in Phytochemistry 12: 33 – 39.

**53.** Lau KY, Zainin NS, Abas F and **Rukayadi Y**. 2014. Antibacterial activity of *Eugenia polyantha* Wight against *Bacillus cereus* and *Bacillus subtilis*. International Journal of Current Microbiology and Applied Sciences 3 (12): 499 – 510.

**52.** Wendy Voon WY, Ghali NA, **Rukayadi Y** and Meor Hussin AS. 2014. Application of betel leaves (*Piper betle* L.) extract for preservation of homemade *chili bo*. International Food Research Journal 21 (6): 2399 – 2403.

**51.** Yusoff NAH, Bustaman MS, Abas F, Khatib A and **Rukayadi Y**. 2014. Antimicrobial activity of *Cosmos caudatus* extract against foodborne pathogens. Journal of Pure and Applied Microbiology 8 (5): 3681 – 3688.

**50.** Santhanam RK, Ahmad S, Abas F, Ismail IS, **Rukayadi Y** and Shaari K. 2013. Photoprotective properties of *Zanthoxylum rhetsa*: An *in vitro* analysis. Journal of Chemical and Pharmaceutical Research 5 (12): 1512 – 1520.

**49.** Elexson N, Leili AH, **Rukayadi Y**, Soopna P, Lee HY, Tuan Zainazor TC, Nor Ainy M, Nakaguchi Y, Mitsuaki Y and Son R. 2014. Effect of detergents as antibacterial agents on biofilm of antibiotics-resistant *Vibrio parahaemolyticus* isolates. Food Control 35: 378 – 385.

**48.** Goh SG, Leili AH, Kuan CH, Loo YY, Lye YL, Chang WS, Soopna P, Najwa MS, Tang JYH, **Rukayadi Y**, Nishibuchi M, Nakaguchi Y and Son R. 2014. Transmission of *Listeria monocytogenes* from raw chicken meat to cooked chicken meat through cutting boards. Food Control 37: 51 – 55.

**47.** Loo YY, Puspanadan S, Goh SG, Kuan CH, Chang WS, Lye YL, John YTH, **Rukayadi Y,** Yoshitsugu N, Nishibuchi M and Son R. 2013. Quantitative detection and characterization of Shiga toxin-producing *Escherichia coli* O157 and non-O157 in raw vegetables by MPN-PCR in Malaysia. International Food Research Journal 20 (6): 3313 – 3317.

**46.** Zainin NS, Lau KY, Zakaria M, Radu S, Abdull Razis AF, and **Rukayadi Y.** Antibacterial activity of *Boesenbergia rotunda* (L.) Mansf. A. extract against *Escherichia coli.* International Food Research Journal 20 (6): 3319 – 3323.

**45.** Tan SL, Lee HY, Abu Bakar F, Abdul Karim MS, **Rukayadi Y** and Mahyudin NA. 2013. Microbiological quality on food handler's hands at primary schools in Hulu Langat District, Malaysia. International Food Research Journal 20: 2973 – 2977.

**44.** **Rukayadi Y**, Lau KY, Zainin NS, Zakaria M and Abas F. 2013. Screening antimicrobial activity of tropical edible medicinal plant extracts against five standard microorganisms for natural food preservative. International Food Research Journal 20 (5): 2905 – 2910.

**43.** **Rukayadi Y** and JK Hwang. 2013. *In vitro* activity of xanthorrhizol isolated from the rhizome of Javanese turmeric (*Curcuma xanthorrhiza* Roxb.) against *Candida albicans* biofilms. Phytotheraphy Research 27:1061-1066.

**42**. Fouladynezhad N, Afsah-Hejri L, **Rukayadi Y**, Nakaguchi Y, Nishibuchi M and Son R. 2013. Efficiency of four Malaysian commercial disinfectants on removing *Listeria monocytogenes* biofilm. International Food Research Journal 20(3): 1485-1490.

**41**. Puspanadan S., Afsah-Hejri L, John YHT, **Rukayadi Y**, Loo YY, Nillian E, Kuan CH, Goh SG, Chang WS, Lye YL, Mohd Shahril N, Yoshitsugu N, Nishibuchi M and Son R. 2013. Characterization of extended-spectrum β -lactamases (ESBLs) producers in *Klebsiella pneumoniae* by genotypic and phenotypic method. International Food Research Journal 20(3): 1479-1483.

**40**. Chang WS, Afsah-Hejri L, **Rukayadi Y**, Khatib A, Lye YL, Loo YY, Mohd Shahril N, Puspanadan, S, Kuan CH, Goh SG, John YHT, Nakaguchi Y, Nishibuchi M and Son R. 2013. Quantification of *Escherichia coli* O157:H7 in organic vegetables and chickens. International Food Research Journal 20(2): 1023-1029.

**39.** Lye YL, Afsah-Hejri L, Chang WS, Loo YY, Puspanadan S, Kuan CH, Goh SG, Shahril N, **Rukayadi Y,** Khatib A, John YHT, Nishibuchi M, Nakaguchi Y and Son R. 2013. Risk of *Escherichia coli* O157:H7 transmission linked to the consumption of raw milk. International Food Research Journal 20(2): 1001-1005.

**38.** Fouladynezhad N, Afsah-Hejri L, **Rukayadi Y**, Abdulkarim SM, Marian MN and Son R. 2013. Assessing biofilm formation by *Listeria monocytogenes.* International Food Research Journal 20(2): 987-990.

**37.** Puspanadan S, Afsah-Hejri L, Loo YY, Nillian E, Kuan CH, Goh SG, Chang WS, Lye YL, John YHT, **Rukayadi Y**, Yoshitsugu N, Nishibuchi M and Son R. 2012. Detection of *Klebsiella pneumoniae* in raw vegetables using Most Probable Number-Polymerase Chain Reaction (MPN-PCR). International Food Research Journal 19(4): 1757-1762.

**36.** Ruslan K, **Y. Rukayadi,** R. Wahyuningsih, M. Singgih and Elgahmi. 2012. Antimicrobial and cytotoxic activities of *Jatropha curcas* Linn. seedcake from biofuel production. Journal of Pure and Applied Microbiology 6: 645 – 651.

**35. Rukayadi Y,** A. Diantini and K. Lestari. 2012. Antifungal activity of methanolic extract of *Usne*a sp. against *Malassezia furfur*. Bionatura 14: 31-37.

**34.** Ruslan K, AD Selfitri, SA Bulan, **Y Rukayadi** and Elfahmi. 2012. Effect of *Agrobacterium rhizogenes* and elicitation on the asiaticoside production in cell cultures of *Centella asiatica*. Pharmacognosy Magazine 8: 111 - 115.

**33. Rukayadi Y**. 2012. Potency of Indonesian natural products for nutraceutical, pharmaceutical and cosmecuetical industry development. In: Proceeding of Seminar Nasional Teknik Kimia. Bandung, Indonesia, April 25. p. 2 -12.

**32. Rukayadi Y.** 2011. Temu kunci [*Boesenbergia rotunda* (L.) Mansf. A] from the legend to cosmetic products. *In*: Proceeding of The 2nd International Conference of Sundanese Culture. Bandung, Indonesia, December 19-22. p. 1 – 16.

**31. Rukayadi Y.,** S. Han, D. Yong, and JK. Hwang. 2011. *In vitro* activity of xanthorrhizol against *Candida glabrata*, *C. guilliermondii*, and *C. parapsilosis* biofilms. *Medical Mycology* **49 (1):** 1 – 9.

**30. Rukayadi Y.,** S. Han, D. Yong, and JK. Hwang. 2010. *In vitro* antibacterial activity of panduratin A against enterococci clinical isolates. *Biological & Pharmaceutical Bulletin* **33 (9)**: 1489 – 1493.

**29. Rukayadi Y.**, K. Lee, M. Lee, D. Yong, and JK. Hwang. 2009. Synergistic anticandidal activity of xanthorrhizol in combination with ketoconazole or amphotericin B. *FEMS Yeast Research* **9**: 1302 - 1311.

**28**. **Rukayadi Y.**, K. Lee, S. Han, and JK. Hwang. 2009. Antibacterial and sporicidal activity of macelignan isolated from nutmeg (*Myristica fragrans* Houtt.). *Food Science and Biotechnology* **18 (5)**: 1301 – 1304.

**27**. **Rukayadi Y.**, K. Lee, S. Han, D. Yong, and J-K. Hwang. 2009. In Vitro Activities of Panduratin A against Clinical *Staphylococcus* Strains. *Antimicrobial Agents and Chemotheraphy* **53 (10)**: 4529 – 4532.

**26**. Yanti, **Y. Rukayadi**, K. Lee, S. Han, and JK. Hwang. 2009. Anti-biofilm activity of xanthorrhizol isolated from *Curcuma xanthorrhiza* Roxb. against bacterial biofilms in saliva and artificial multi-species oral strains. *Food Science and Biotechnology* 18: 556-560.

**25.** Yanti, **Y. Rukayadi**, K. Lee, S. Han, and JK. Hwang. 2009. Activity of panduratin A isolated from *Curcuma xanthorrrhiza* Roxb. against multi-species oral biofilms. *Journal of Oral Science*. 51: 87-95.

**24**. **Rukayadi Y.** and JK. Hwang. 2009. Preventing quorum sensing: a new approach to overcome bacterial infections. *Scientific Journal of Pharmaceutical Development and Medical Application* (*Medicinus*) 22 (1): 22-27.

**23**. **Rukayadi Y.**, JS. Shim, and JK. Hwang. 2008. Susceptibility of xanthorrhizol isolated from Javanese turmeric or temulawak (*Curcuma xanthorrhiza* Roxb.) on clinical *Candida* planktonics growth and biofilms. *In*: Proceeding of The First International Symposium on Temulawak. Bogor, Indonesia, May 27-29, 2008. p 305 – 312.

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| | **22**. **Rukayadi Y.**, JS. Shim, and JK. Hwang. 2008. *In vitro* antistaphylococcal activity of xanthorrhizol isolated from the rhizome of temulawak (*Curcuma xanthorrhiza* Roxb.). *In*: Proceeding of The First International Symposium on Temulawak. Bogor, Indonesia, May 27-29, 2008. p 294 – 304.<br>**21**. Lee YL., JS. Shim, **Y. Rukayadi**, and JK. Hwang. 2008. Antibacterial activity of xanthorrhizol isolated from *Curcuma xanthorrhiza* Roxb. against foodborne pathogens.*Journal of Food Protection* 91: 1926-1930.<br>**20**. **Rukayadi Y.,** JS. Shim, and JK. Hwang. 2008. Screening of Thai medicinal plants for anticandidal activity. *Mycoses* **51**: 308-312.<br>**19**. Sohn JH., KL. Han, JH. Kim, **Y. Rukayadi**, and JK. Hwang. 2008. Protective effects of macelignan on cisplatin-induced hepatotoxicity is associated with JNK activation. *Biological & Pharmaceutical Bulletin* **31**:273-277.<br>**18**. Yanti, **Y. Rukayadi**, KH. Kim, and JK. Hwang. 2008. *In vitro* anti-biofilm activity of macelignan isolated from *Myristica fragrans* Houtt. against oral primary bacteria. *Phytotherapy Research* **22**: 308-312.<br>**17. Rukayadi Y.** and JK. Hwang. 2007. The effects of xanthorrhizol on the morphology of *Candida* cells examined by scanning electron microscopy. *Microbiology Indonesia* **1**:98 – 100.<br>**16. Rukayadi Y.** and JK. Hwang. 2007. *In vitro* antimycotic activity of xanthorrhizol isolated from *Curcuma xanthorrhiza* Roxb. against opportunistic filamentous fungi. *Phytotherapy Research* **21**: 434-438.<br>**15. Rukayadi Y.** and JK. Hwang. 2007. *In vitro* anti-*Malassezia* activity of xanthorrhizol isolated from *Curcuma xanthorrhiza* Roxb. *Letter in Applied Microbiology* **44**: 126 - 130.<br>**14. Rukayadi Y.** and JK. Hwang. 2006. Effect of coating the wells of polystyrene microtiter plate with xanthorrhizol on the biofilm formation of *Streptococcus mutans*. *Journal of Basic Microbiology* **46**: 411-416.<br>**13.** Choo JH., **Y. Rukayadi**, and JK. Hwang. 2006. Inhibition of bacterial quorum sensing by vanilla extract. *Letter in Applied Microbiology* **42**: 637-641.<br>**12. Rukayadi Y.,** D. Yong, and JK. Hwang. 2006. *In vitro* anticandidal activity of xanthorrhizol isolated from *Curcuma xanthorrhiza* Roxb. *Journal of Antimicrobial and Chemotherapy* **57**: 1231-1234.<br>**11. Rukayadi Y.** and JK. Hwang**.** 2006. *In vitro* activity of xanthorrhizol against *Streptococcus mutans* biofilms. *Letter in Applied Microbiology* **42**: 400-404.<br>**10. Rukayadi Y**. 2006. Effect of xanthorrhizol on *Streptococcus mutans* biofilms *in vitro*. *Indonesian Journal of Microbiology* **11**:40-43.<br>**9. Rukayadi Y.** and JK. Hwang. 2005. *In vitro* anticandida activity in fresh garlic extract. *Indonesian Journal of Microbiology* **10**: 55-58.<br>**8.** Rahayu S., F. Tanuwidjaja, **Y. Rukayadi**, A. Suwanto, MT. Suhartono, JK. Hwang, and YR. Pyun. 2004. Study of thermostable chitinase enzymes from Indonesian *Bacillus* K29-14. *J. Microbiol. Biotechnol.* **14**: 647-652.<br>**7.** Yuli PE., MT. Soehartono, **Y. Rukayadi**, JK. Hwang, and YR. Pyun. 2004. Characteristics of thermostable chitinase enzymes from the Indonesian *Bacillus* sp.13.26. *Enzyme and Microbiol Technology* **35**:147-153.<br>**6. Rukayadi Y.** 2003. Life in icy biosphere. *Hayati Indonesian Journal of Bioscience* **10**: 41-47.<br>**5. Rukayadi Y.** 2002**.** Chitin deacetylase and its applications. *Hayati Indonesian Journal of Bioscience)* **9**:130-134.<br>**4.** Natsir H., D. Candra, **Y. Rukayadi,** MT. Suhartono, JK. Hwang, and YR. Pyun. 2002. Biochemical characteristics of chitinase enzyme from *Bacillus* sp. of Kamojang crater, Indonesia. *Journal of Biochemistry, Molecular Biology and Biophysics* **6**:279-282.<br>**3. Rukayadi Y**., A. Suwanto, B. Tjahjono, and R. Harling. 2000. Survival and epiphytic fitness analysis of a non-pathogenic mutant of *Xanthomonas campestris* pv. Glycines. *Applied and Environmental Microbiology* **66**:1183-1189.<br>**2.** Adidjuwana S., A. Suwanto, PD. Tjondronegoro, and **Y. Rukayadi**. 2000. Isolation and screening of bacteria from corn and cassava phyllosphere that could suppress the growth *Xanthomonas campestris* pv. Glycines. *Hayati (Indonesian Journal of Bioscience)* **7**:75-79.<br>**1. Rukayadi Y**., A. Suwanto, and B. Tjahjono. 1998. Plasmid construction containing *Pac*I and *Pme*I sites for transposon mutagenesis in *Xanthomonas campestris.* Hayati (Indonesian Journal of Bioscience) **5**: 79-85. |
| *Books/Monographs* | |
| *Chapter in book* | |
| *Proceedings* | **18.** Ramli S, Radu S, Shaari K, **Rukayadi Y**., 2016. Antibacterial activity of daun salam (*Sygygium polyanthum* L.) extract against foodborne pathogens. Research Symposium 2016. UK and Thammasat University joint Symposium 2016. UKM-KL Campus, Kuala Lupmur, 12-13 Aprol, pp.157-162.<br>**17.** Zakuan Z, Sukor R, **Rukayadi Y**, 2016. Antifungal activity of *Piper cubeba* L. extract against fungal food spoilage isolated from different raw food samples. Research Symposium 2016. UK and Thammasat University joint Symposium 2016. UKM-KL Campus, Kuala Lupmur, 12-13 Aprol, pp. 138-144.<br>**16.** Yusoff IM, **Rukayadi Y**, Hussain N, 2016. Antibacterial activities of *Cinnamomum zeylanicum* Blume leaves extract against *Klebsiella pneumoniae* and *Staphylococcus aureus*. Research Symposium |

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## H. PROJEK PENYELIDIKAN TERDAHULU *(Past Research Project)*

| *Project No.* | *Project Title* | *Role* | *Year* | *Source of fund* | *Status* |
|---|---|---|---|---|---|
| GP-IPS/2015/9450300 | Anticariogenic activity of *Piper cubeba* L. extract and its compounds against *Streptococcus mutans* | Project Leader | 2015-2016 | GP-IPS-UPM | Completed |
| GP-IPS/2014/9446800 | Determination of antibacterial compounds in fractionations of fermented cocoa extracts with different starter cultures | Project Leader | 2015 - 2016 | GP-IPS-UPM | Completed |
| FRGS/2/2014/SG05/UPM/02/2 | Identification of antispore markers in bay leaf (*Syzygium polyanthum* L.) employing LCMS- and NMR-metabolomics approaches | Project Leader | 2014 - 2016 | FRGS - MOHE | Completed |
| GP-IBT/2013/9410800 | Isolation and discrimination of xanthorrhizol from the rhizome of temu lawak (Curcuma xanthorrhiza Roxb.) through the use of GCMS and IR based metabolomics for the production of potential natural antimicrobial agent against antibiotics-resistant bacteria | Project Leader | 2013-2015 | RUGS-UPM | Completed |
| | Production of biocellulose from Malaysian food waste by biocellulose-producing bacteria isolated from local acidic fruits | Project member | 2013-2015 | RUGS-UPM | Completed |
| | Modulation of carcinogenmetabolising enzymes by glucosinolate gluconasturtiin for anti-cancer | Project member | 2013-2015 | RUGS-UPM | Completed |
| GP-IPS/2013/9396700 | Sporicidal activity of edible medicinal plants extract against Bacillus cereus and Bacillus subtilis | Project Leader | 2013-2014 | RUGS-UPM | Completed |
| FRGS/2/2013/STWN04/UPM/02/1) | Characterization of the role and growth promoting properties of bacteria symbiotically associated with red seaweed, Gracilaria changii | Project member | 2013-2015 | FRGS-MOHE | Completed |
| FRGS/1/2013/SG05/UPM/02/1 | Induction of Secondary Metabolites Biosynthesis from Marine Fungal Isolates As Potential Inhibitors of Listeria monocytogenes Biofilm Formation | Project member | 2013 | FRGS-MOHE | Completed |
| | NMR-and LCMS-Metabolomics Approach in Identifying Anti-Pathogen Markers of Andrographis paniculata (Hempedu Bumi) | Project member | 2012 | ERGS-MOHE | Completed |
| 02-05-11-1586RU | Antimicrobial activity of tropical EMPE Edible Medicinal Plant Extract for Natural Food Preservative | Project Leader | 2011 | RUGS-4 | Completed |
| 2010 – 3-0178 | Synergistic combination of natural bioactive compounds or extract of medicinal plants for antimicrobial agents | Project Leader | 2010 | BK21 (South Korea) | Completed |
| 2009 – 3- 0178 | Antimicrobial and antibiofilm activities of panduratin A isolated from the rhizome of fingerroot (*Kaempferia pandurata* Roxb.) and xanthorrhizol isolated from Javanese turmeric (*Curcuma xanthorrhiza* Roxb.) against clinical pathogenic strains | Project Leader | 2009 | BK21 (South Korea) | Completed |
| 2008 – 3- 0178 | Antibiofilm activity of medicinal plant extract. | Project Leader | 2008 | BK21 (South Korea) | Completed |
| 2007-7-0178 | Study of tropical medicinal plants | Project member | 2007 | BK21 | Completed |
| 2006-8-1797 | Study of Indonesian medicinal plants | Project member | 2006 | KICOS | Completed |
| | Study of thermostable enzymes from | Project member | 2000 | KOSEF - BRC | Completed |

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| 2000-N-NL-01-C299 | Indonesian thermophilic bacteria | | | | |
| URGE029/HTPP/II/URGE/96 | Biocontrol for soybean disease | Project member | 1996 | URGE | Completed |
| RUT1921/SP-KD/PPIT/IV/95 | Biocontrol for soybean disease | Project member | 1995 | RUT | Completed |