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日本栄養大学大学院
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Faculty Members

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# Akiko Fukushima

Faculty of Nutrition
Professor

## ■ E-Mail Address

fakiko@eiyo.ac.jp

## ■ Education

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|---|---|---|
| **1.** | 1985/04～1989/03 | Department of Health & Nutrition, Undergraduate School of Nutrition Sciences, Kagawa Nutrition University, Graduated, |
| **2.** | 1992/04～1994/03 | 〔Master degree program〕 Nutrition Sciences Degree Program,, Graduate Schools of Nutrition Sciences, Graduate School of Kagawa Nutrition University, Completed, |
| **3.** | 1994/04～1998/03 | 〔Doctoral course〕 Biochemistry, Graduate School of Medicine, Graduate School of Saitama Medical University, Completed, Ph.D |

## ■ Career

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|---|---|---|
| **1.** | 1989/04～1994/03 | Kagawa Nutrition University Faculty of Nutrition |
| **2.** | 2000/04～2003/03 | Kagawa Nutrition University Faculty of Nutrition Research Associate |
| **3.** | 2003/04～2006/03 | Kagawa Nutrition University Faculty of Nutrition Assistant Professor |
| **4.** | 2006/04～2015/03 | Kagawa Nutrition University Faculty of Nutrition Associate Professor |
| **5.** | 2015/04～ | Kagawa Nutrition University Faculty of Nutrition Professor |

## ■ Research Interests/Keywords

Nutrition science and health science, Molecular biology (Key Word : Molecular Biology, Nutrition, Gene Expression)

## ■ Qualifications

**1.** 1991/03/30 Medical Technologists

## ■ Publications

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|---|---|---|
| **1.** | Journal Articles | Lactase decline in weaning rats is regulated at the transcriptional level and not caused by termination of milk ingestion. (Collaboration) 1997/09 |
| **2.** | Journal Articles | Transcriptional regulation of rat calbindin expression during development determined by bacterially expressed protein. (Collaboration) 1998/02 |
| **3.** | Journal Articles | UTF1, a novel transcriptional coactivator expressed in pluripotent embryonic stem cells and extra-embryonic cells. (Collaboration) 1998/04 |
| **4.** | Journal Articles | Characterization of functional domains of an embryonic stem cell coactivator UTF1 which are conserved and essential for potentiation of ATF-2 activity. (Collaboration) 1998/10 |
| **5.** | Journal Articles | Carboxy-terminally truncated form of a coactivator UTF1 stimulates transcription from a variety of gene promoters through the TATA Box. (Collaboration) 1999/05 |
| **6.** | Journal Articles | The gene for the embryonic stem cell coactivator UTF1 carries a regulatory element which selectivity interact with a complex composed of Oct3/4 and Sox-2. (Collaboration) 1999/08 |
| **7.** | Journal Articles | Isolation and characterization of the fission yeast gene *rpa42*$^{+}$, which encodes a subunit shared by RNA polymerases I and III. (Collaboration) 1999/12 |

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| **8.** | Journal Articles | Structural analyses of the UTF1 gene encoding a transcriptional coactivator expressed in pluripotent embryonic stem cells. (Collaboration) 2001/07 |
| **9.** | Journal Articles | Chronic docosahexaenoic acid intake enhances expression of gene for uncoupling protein 3 and affects pliotropic mRNA levels in skeltal muscle of aged C57BL/6NJcl mice. (Collaboration) 2001/10 |
| **10.** | Journal Articles | The effect of fructo- oligosaccharides was analyzed by cDNA expression arrays. (Collaboration) 2004/02 |
| **11.** | Journal Articles | The specific expression patterns of lactase, sucrase and calbindin-D9k in weaning rats are regulated at the transcriptional level. (Collaboration) 2004/08 |
| **12.** | Journal Articles | Serotonin transporter polymorphisms affect human blood glucose control. (Collaboration) 2005/09 |
| **13.** | Journal Articles | Expression of calbindin-D9k, VDR and Cdx-2 messenger RNA in the process by which fructooligosaccharides increase calcium absorption in rats. (Collaboration) 2005/12 |
| **14.** | Journal Articles | Human nutrigenomics of membrane transporters and receptors to control metabolic syndrome. (Collaboration) 2007/01 |
| **15.** | Journal Articles | Short-chain fatty acids induce intestinal transient receptor potential vanilloid type 6 expression in rats and Caco-2 cells. (Collaboration) 2009/01 |
| **16.** | Journal Articles | Short-chain Fatty acids increase the level of calbindin-d9k messenger RNA in caco-2 cells. (Collaboration) 2012/08 |
| **17.** | Journal Articles | Folic acid supplementation reduced depression score in young Japanese women with depression-susceptible genetic polymorphisms. (Collaboration) 2014/08 |
| **18.** | Journal Articles | Association between Sleep Duration and Personality-Gene Variants: Sleep Duration is Longer in S/S Homozygotes of Serotonin Transporter than in L Allele Genotypes (Collaboration) 2015/07 |

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## ■ Grants

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| **1.** | 2007/04～2010/03 | Effect of vitamin K on the calcium channel (TRPV) and calbindin-D9k genes in the gastrointestinal tract of rats and Caco-2 cells. (Key Word : gene expression, rat, calcium channel, vitamin K, calcium absorption) |
| **2.** | 2012/04～2014/03 | Relations of the microRNA to the lactase gene expression in the weaning period. (Key Word : lactase, microRNA, transcription, weaning period) |

## ■ Memberships

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|---|---|---|
| **1.** | 1992～ | Molecular Biology Society of Japan |
| **2.** | 1999～ | Japan Society of Nutrition and Food Science |
| **3.** | 1999～ | Japanese Biochemical Society |
| **4.** | 2005/10～ | Japanese Association of Medical Technologists |
| **5.** | 2013/08～ | Japanese association of medical technology education |
| **6.** | 2005/10～ | Saitama Association of Medical Technologists |

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## ■ Prizes,Honors,and Awards

**1.** 2007/03 The 18th Kato Memorial Bioscience Foundation "Incentive Research Grant