Exploring the core microbial commonalities of alcoholics and CRC patients'

Priyanka Sarkar[1,2*], Mohan Chandra Kalita[3], Rupjyoti Talukdar[1], Mojibur R. Khan[2*]

[1]DBT-Wellcome (Indian Alliance) Lab, Asian Healthcare Foundation, Asian Institute of Gastroenterology

[2]Institute of Advanced Study in Science and Technology (IASST)

[3]Dept. of Biotechnology, Gauhati University

*mojibur.khan@gmail.com and priyanka.sarkar14@gmail.com

Background

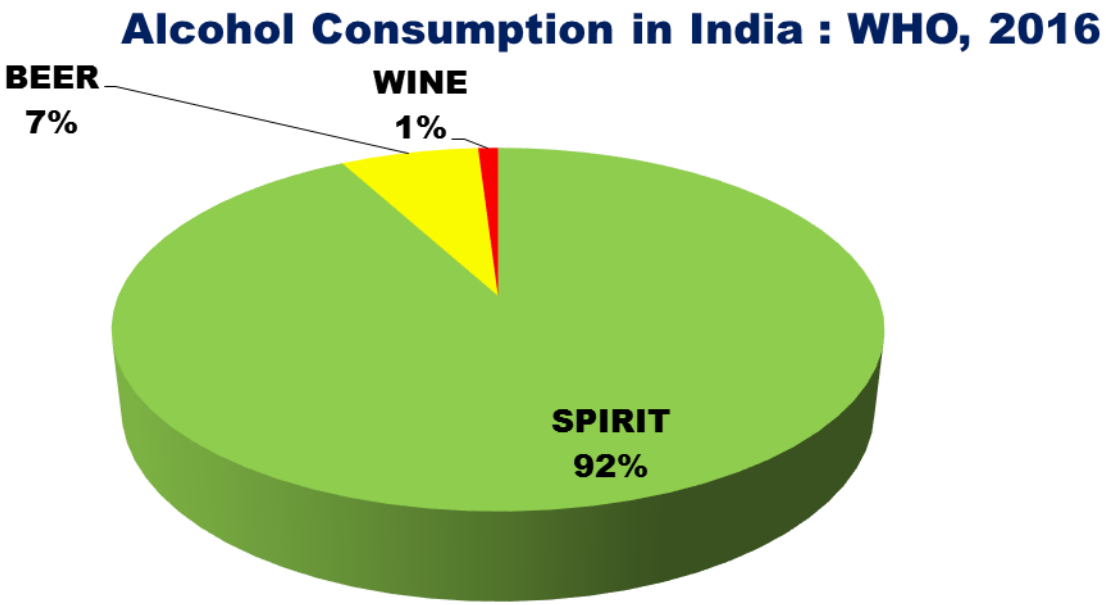
ScienceNews
MAGAZINE OF THE SOCIETY FOR SCIENCE & THE PUBLIC

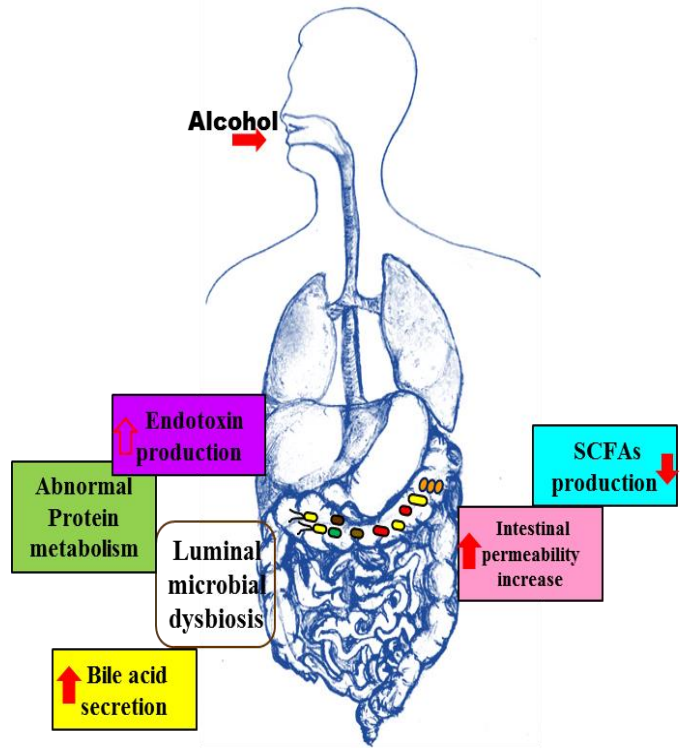
NEWS HUMAN EVOLUTION, ANTHROPOLOGY

Origins of alcohol consumption traced to ape ancestor

Eating fermented fruit off the ground may have paved way for ability to digest ethanol

BY ERIN WAYMAN 9:22AM, FEBRUARY 18, 2013





Is there any missing link?

American Journal of Epidemiology
© The Author 2008. Published by the Johns Hopkins Bloomberg School of Public Health. All rights reserved. For permissions, please e-mail: journals.permissions@oxfordjournals.org.
Vol. 167, No. 12
DOI: 10.1093/aje/kwn073
Advance Access publication April 11, 2008

Meta-Analysis

Alcohol Drinking and Colorectal Cancer in Japanese: A Pooled Analysis of Results from Five Cohort Studies

Tetsuya Mizoue[1], Manami Inoue[2], Kenji Wakai[3], Chisato Nagata[4], Taichi Shimazu[2,5], Ichiro Tsuji[5], Tetsuya Otani[6], Keitaro Tanaka[7], Keitaro Matsuo[8], Akiko Tamakoshi[9], Shizuka Sasazuki[2], and Shoichiro Tsugane[2] for the Research Group for the Development and Evaluation of Cancer Prevention Strategies in Japan

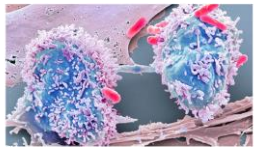
British Journal of Cancer (2010) 103, 747 – 756
© 2010 Cancer Research UK All rights reserved 0007 – 0920/10
www.bjcancer.com

Alcohol intake and risk of colorectal cancer: Results from the UK Dietary Cohort Consortium

JY Park[1], CC Dahm[2], RH Keogh[2,3], PN Mitrou[2], BJ Cairns[4], DC Greenwood[5], EA Spencer[4], IS Fentiman[6], MJ Shipley[7], EJ Brunner[7], JE Cade[5], VJ Burley[5], GD Mishra[8], D Kuh[8], AM Stephen[9], IR White[3], RN Luben[1], AA Mulligan[2], K-T Khaw[9,1] and SA Rodwell[2,10]

MENU nature REVIEWS MICROBIOLOGY

Altmetric: 42 Citations: 292 More detail »



Review

The gut microbiota, bacterial metabolites and colorectal cancer

Petra Louis, Georgina L. Hold & Harry J. Flint

www.nature.com/scientificreports

nature

MICROBIOLOGY

Tumours grow where two gut bacteria thrive

Microbes in the intestines of some people and mice make toxins that promote tumours.

SCIENTIFIC REPORTS

OPEN

Distinct gut microbiome patterns associate with consensus molecular subtypes of colorectal cancer

Received: 26 June 2017
Accepted: 21 August 2017

Rachel V. Purcell[1], Martina Visnovska[2], Patrick J. Biggs[3], Sebastian Schmeier[1,2] & Frank A. Frizelle[1]

European Journal of Cancer Prevention. 23(6):532–539, NOV 2014
DOI: 10.1097/CEJ.0000000000000076, , PMID: 25170915
Issn Print: 0959-8278
Publication Date: 2014/11/01

Share Print

Alcohol drinking and the risk of colorectal cancer death: a meta-analysis

Shaofang Cai; Yingjun Li; Ye Ding; Kun Chen; Mingjuan Jin

British Journal of Cancer (2007) 96, 821 – 827
© 2007 Cancer Research UK All rights reserved 0007 – 0920/07 $30.00
www.bjcancer.com

review

Annals of Oncology 22: 1958–1972, 2011
doi:10.1093/annonc/mdq653
Published online 9 February 2011

Alcohol drinking and colorectal cancer risk: an overall and dose–response meta-analysis of published studies

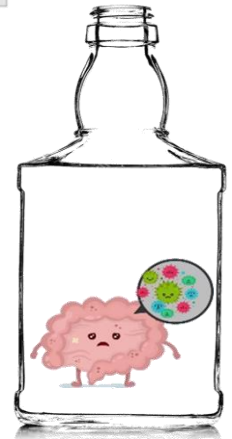
V. Fedirko[1]*, I. Tramacere[2], V. Bagnardi[3,4], M. Rota[3,5], L. Scotti[3], F. Islami[1,6,7], E. Negri[2], K. Straif[1], I. Romieu[1], C. La Vecchia[2,8], P. Boffetta[9,10] & M. Jenab[1]

HHS Public Access
Author manuscript
Annu Rev Microbiol. Author manuscript; available in PMC 2017 September 08.

Published in final edited form as:
Annu Rev Microbiol. 2016 September 08; 70: 395–411. doi:10.1146/annurev-micro-102215-095513.

Gut Microbiota, Inflammation, and Colorectal Cancer

Caitlin A. Brennan[1] and Wendy S. Garrett[1,2,3,4]



Cigarettes and alcohol in relation to colorectal cancer: the Singapore Chinese Health Study

WH Tsong[1], W-P Koh[2], J-M Yuan[*,3], R Wang[3], C-L Sun[3] and MC Yu[3]

[1]Department of Preventive Medicine, Keck School of Medicine, University of Southern California, Los Angeles, CA 90033, USA; [2]Department of Community, Occupational and Family Medicine, Yong Loo Lin School of Medicine, National University of Singapore, Singapore 117597, Singapore; [3]The Cancer Center, University of Minnesota, Minneapolis, MN 55455, USA

ACP India: ANNALS Sp

Annals of Internal Medicine®

LATEST ISSUES CHANNELS CME/MOC IN THE CLINIC JOURNAL CLUB WEB EXCLUSIVES AUTHOR INFO

‹ PREV ARTICLE | THIS ISSUE | NEXT ARTICLE ›

ORIGINAL RESEARCH | 20 APRIL 2004

Alcohol Intake and Colorectal Cancer: A Pooled Analysis of 8 Cohort Studies

Eunyoung Cho, ScD; Stephanie A. Smith-Warner, PhD; John Ritz, PhD; Piet A. van den Brandt, PhD; Graham A. Colditz, MD, DrPh; Aaron R. Folsom, MD; Jo L. Freudenheim, PhD; Edward Giovannucci, MD; R. Alexandra Goldbohm, PhD; Saxon Graham, PhD; Lars Holmberg, MD, PhD; Dong-Hyun Kim, MD, PhD; Nea Malila, MD; Anthony B. Miller, MB, BCh; Pirjo Pietinen, DSc; Thomas E. Rohan, MB, BS; Thomas A. Sellers, PhD; Frank E. Speizer, MD; Walter C. Willett, MD; Alicja Wolk, DrMedSci; David J. Hunter, MB, BS

BJC

FULL PAPER

British Journal of Cancer (2015) 112, 580–593 | doi: 10.1038/bjc.2014.579

Keywords: alcohol; meta-analysis; dose–response; epidemiology

Alcohol consumption and site-specific cancer risk: a comprehensive dose–response meta-analysis

V Bagnardi*[,1,2], M Rota[3,4], E Botteri[2], I Tramacere[5], F Islami[6,7,8], V Fedirko[9], L Scotti[1], M Jenab[10], F Turati[4,11], E Pasquali[2], C Pelucchi[4], C Galeone[4], R Bellocco[1,12], E Negri[4], G Corrao[1], P Boffetta[6] and C La Vecchia[13]

WJG World Journal of Gastroenterology

Submit a Manuscript: http://www.wjgnet.com/esps/
Help Desk: http://www.wjgnet.com/esps/helpdesk.aspx
DOI: 10.3748/wjg.v22.i2.501

World J Gastroenterol 2016 January 14; 22(2): 501-518
ISSN 1007-9327 (print) ISSN 2219-2840 (online)

TOPIC HIGHLIGHT

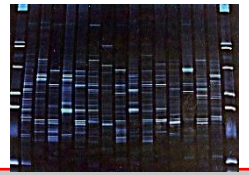
2016 Colorectal Cancer: Global view

Gut microbiota imbalance and colorectal cancer

Johan Gagnière, Jennifer Raisch, Julie Veziant, Nicolas Barnich, Richard Bonnet, Emmanuel Buc, Marie-Agnès Bringer, Denis Pezet, Mathilde Bonnet

Different approaches to study gut microbiota

Study of gut microbiota diversity



Culture independent techniques

Molecular fingerprinting techniques (16S rDNA based)

DGGE/NGS

Culture based techniques

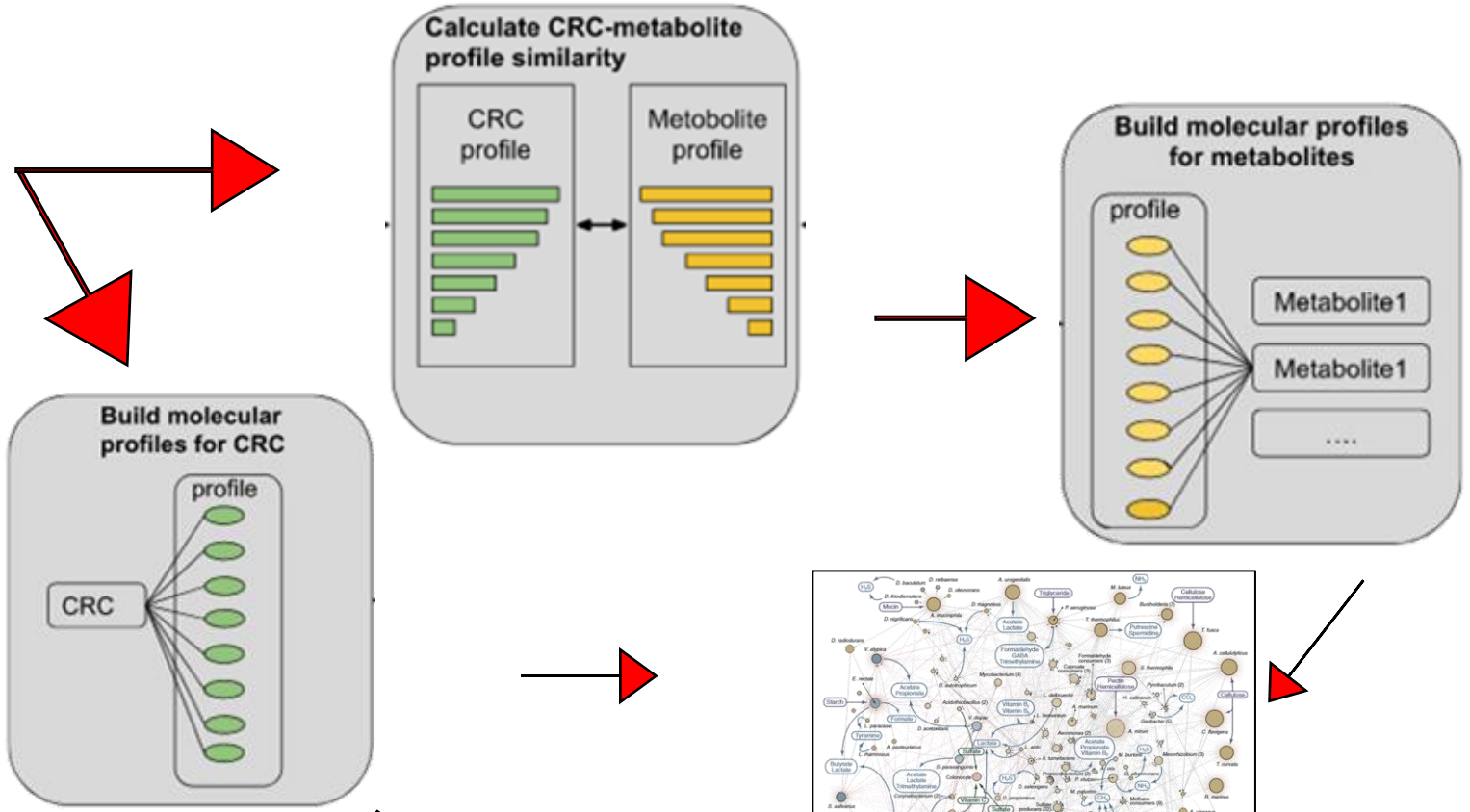
≥50% of the gut bacteria can not be cultivated

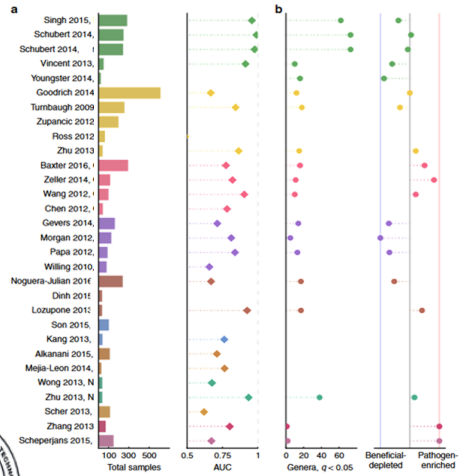
(Brown *et al.*, 2015)

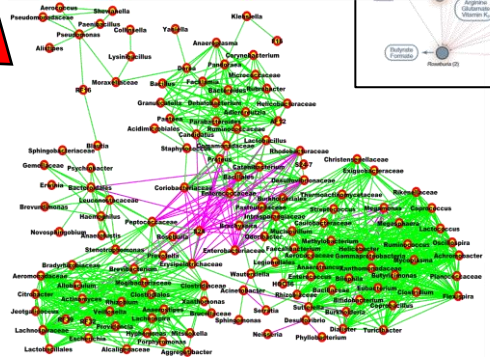
Methodology used for the study

PubMed

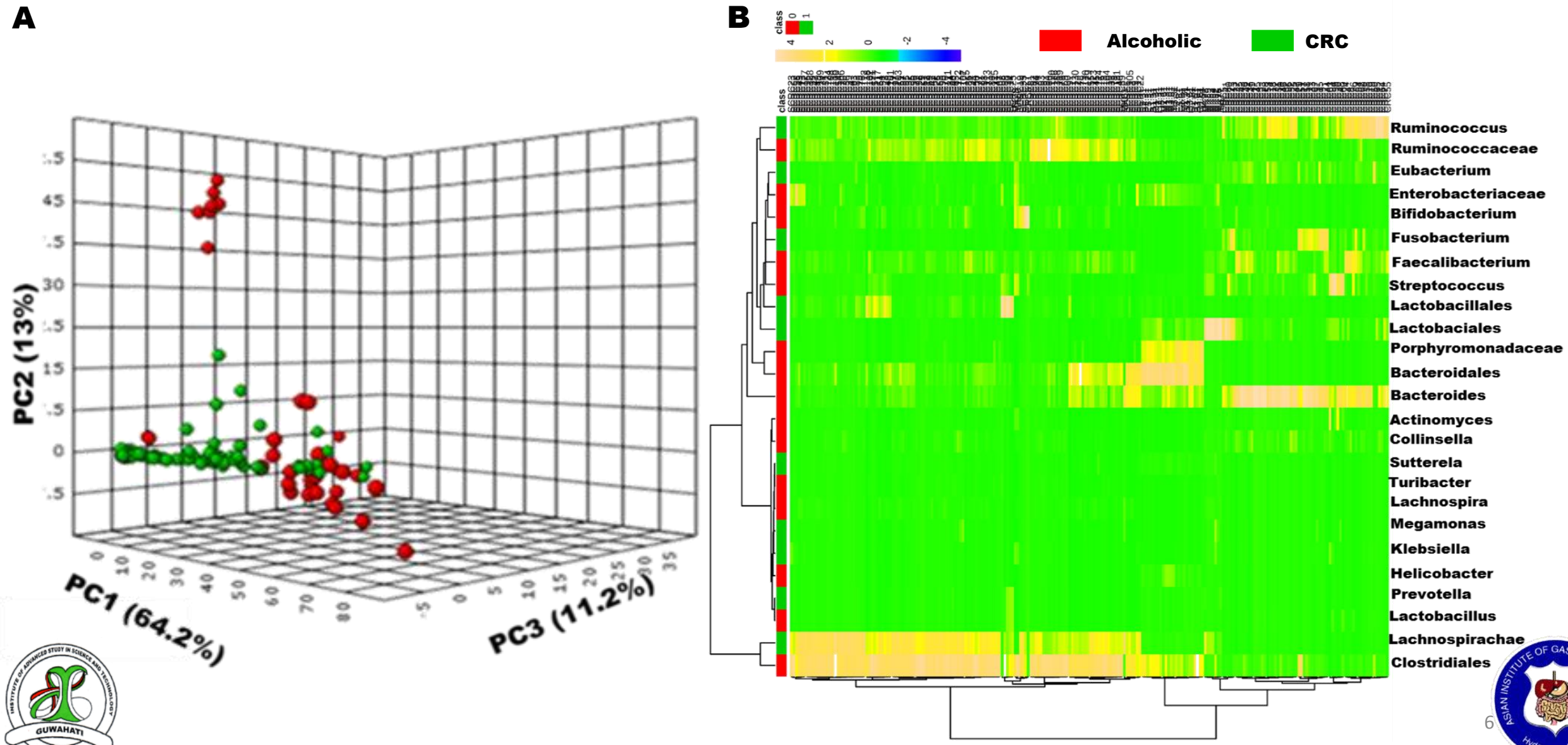
MG-RAST
metagenomics analysis server



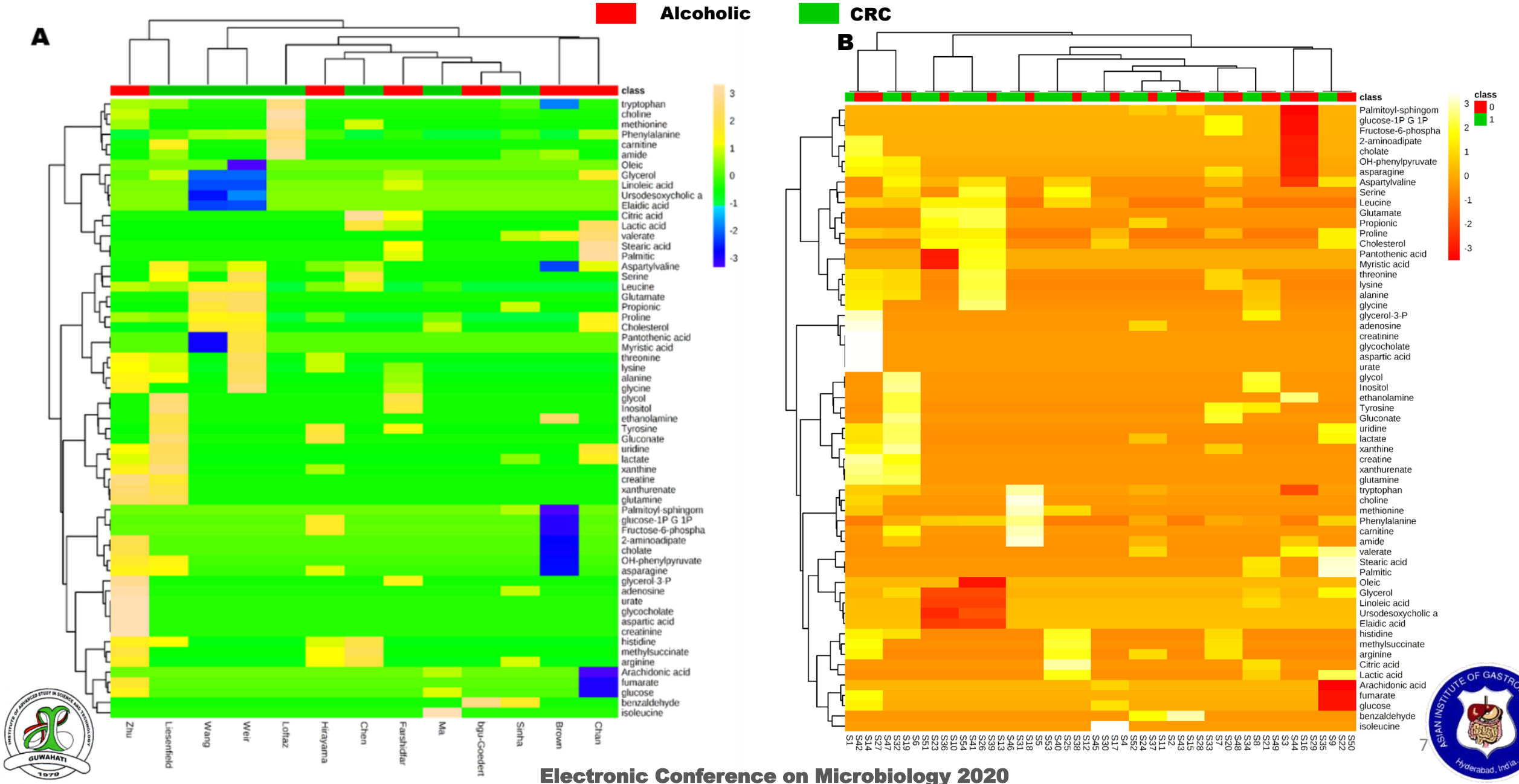




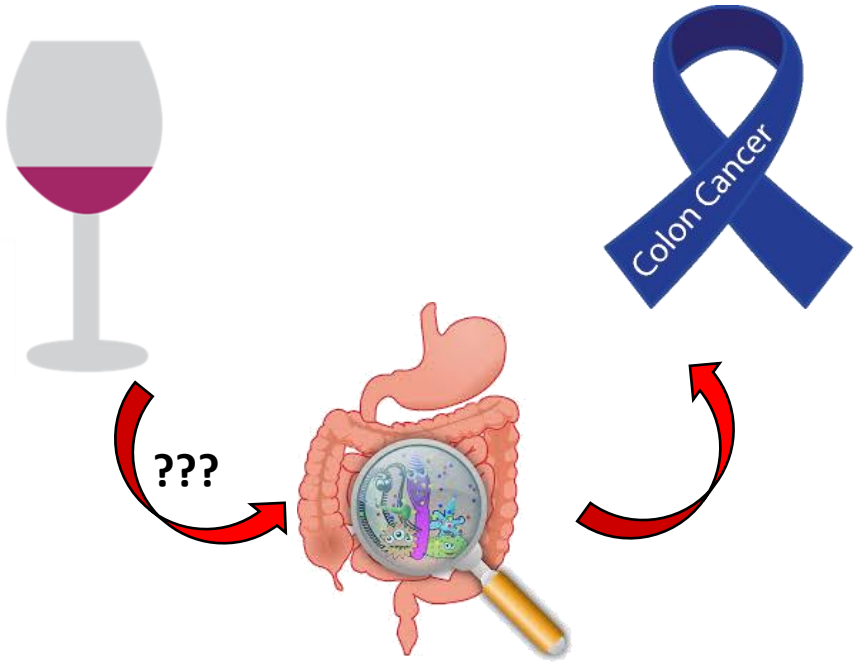
Analysis based on gut microbiome profiles of both Alcoholics and CRC patients



Analysis based on metabolome profiles of both Alcoholics and CRC patients



Findings ...



AIc-CRC

***Bacteroides* sp.**
***Helicobacter* Sp.**
***Porphyromonas* Sp.**
***Clostridium* sp.**
***Klebsiella* sp.**
***Oscillospira* sp.**
Firmicutes*/*Bacteroidetes
Bacteroides*/*Prevotella

***Bifidobacterium* sp.**
***Prevotella* sp.**
***Ruminococcus* sp.**

AIc-CRC

IL1-b
TNF-a
Tetradecane derivatives
Tridecane derivatives
Acetic acid
Palmitic acid/ hexadecanoic acid
Stearic acid/ octadecanoic acid
Palmitoleic acid
Linoleic acid
Arachidonic acid
Isoleucine
Glycine
Alanine
Valine

Butyric acid
Propionic acid

Thank You for listening..