

1           **Correlation between green tea polyphenols regulating intestinal**  
2           **bacteriophage and flora diversity in SPF mice**

3           Sashuang Dong<sup>1</sup>, Zilong Xin<sup>2</sup>, Wencan He<sup>3</sup>, Yuling Zhang<sup>1</sup>, Jiaqi Xiong<sup>1</sup>, Jie  
4           Wang<sup>1</sup>, Zhenlin Liao<sup>1</sup>, Li Wang<sup>1</sup>, Qingping Zhong<sup>1</sup>, Hong Wei<sup>3,4\*</sup>, Xiang Fang<sup>1\*</sup>

5           Affiliation:

6           <sup>1</sup> College of Food Science, South China Agricultural University, Guangzhou,  
7           Guangdong, 510630, P. R. China

8           <sup>2</sup> College of Engineering, South China Agricultural University, Guangzhou,  
9           510630, P. R. China

10          <sup>3</sup> Precision Medicine Institute, The First Affiliated Hospital, Sun Yat-sen  
11          University, Guangzhou, Guangdong, 510030, P. R. China

12          <sup>4</sup> Department of Laboratory Animal Science, College of Basic Medicine Science,  
13          Army Medical University, Chongqing, 400037, P. R. China

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15          \* Corresponding Author:

16          Hong Wei

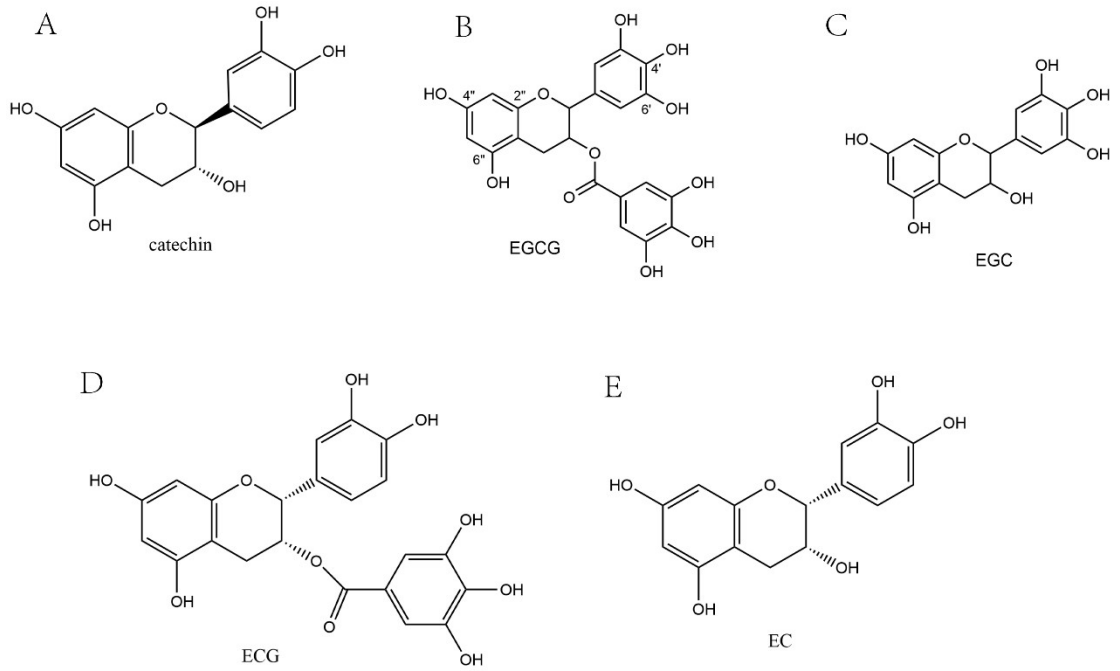
17          Email: [weihong63528@163.com](mailto:weihong63528@163.com)

18          Xiang Fang

19          Email: [fxiang@scau.edu.cn](mailto:fxiang@scau.edu.cn)

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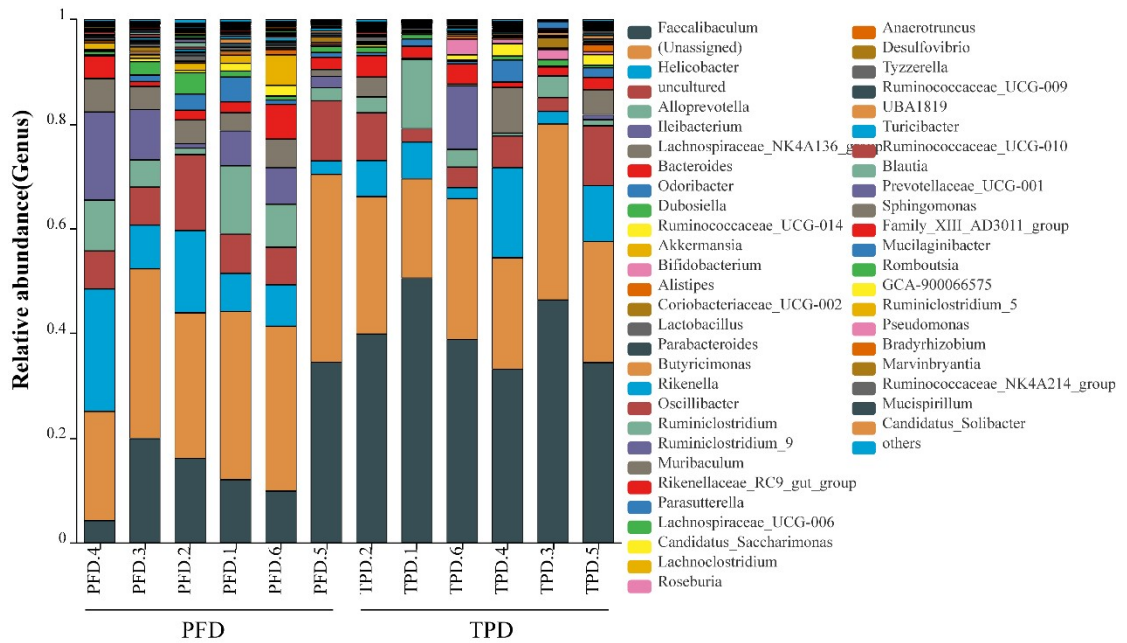


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23 Supplementary Fig.1 Chemical structures of major tea polyphenols. A: Catechin;

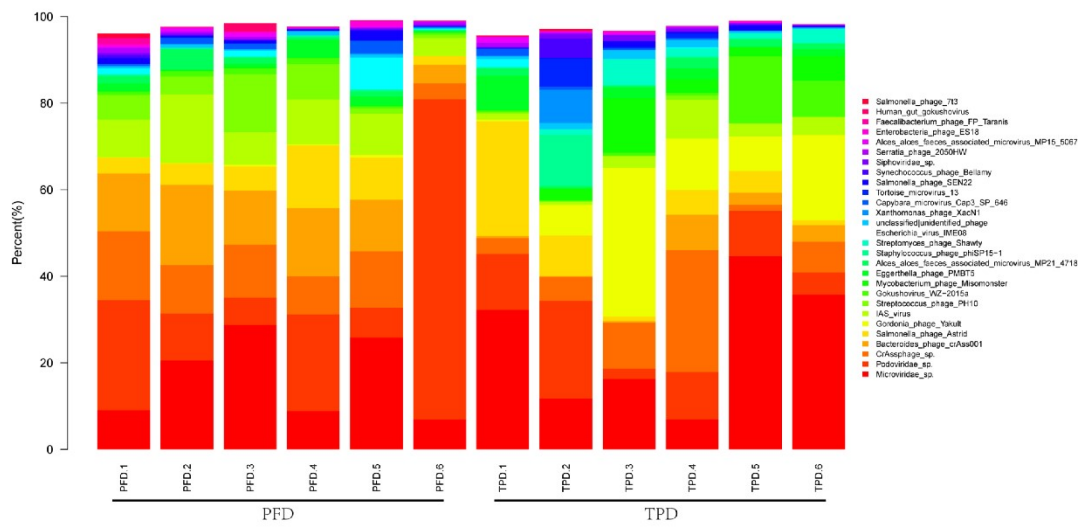
24 B: Epigallocatechin gallate (EGCG); C: Epigallocatechin (EGC); D: Epicatechin

25 gallate (ECG); E: Epicatechin (EC)



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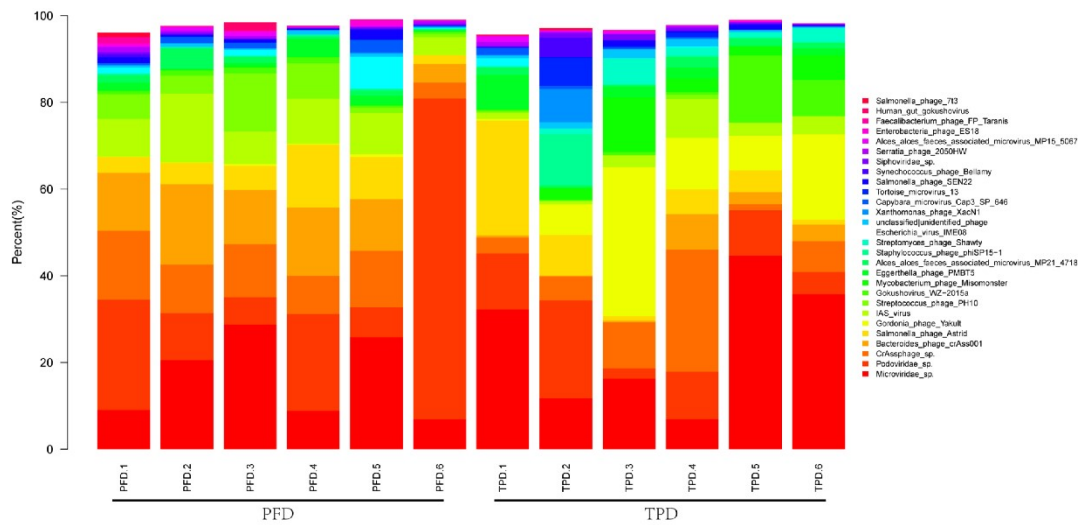
27 Supplementary Fig. 2 Relative abundance of top 50 bacteria at genus level



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29 Supplementary Fig. 3 Relative abundance of main bacteriophages at the family level

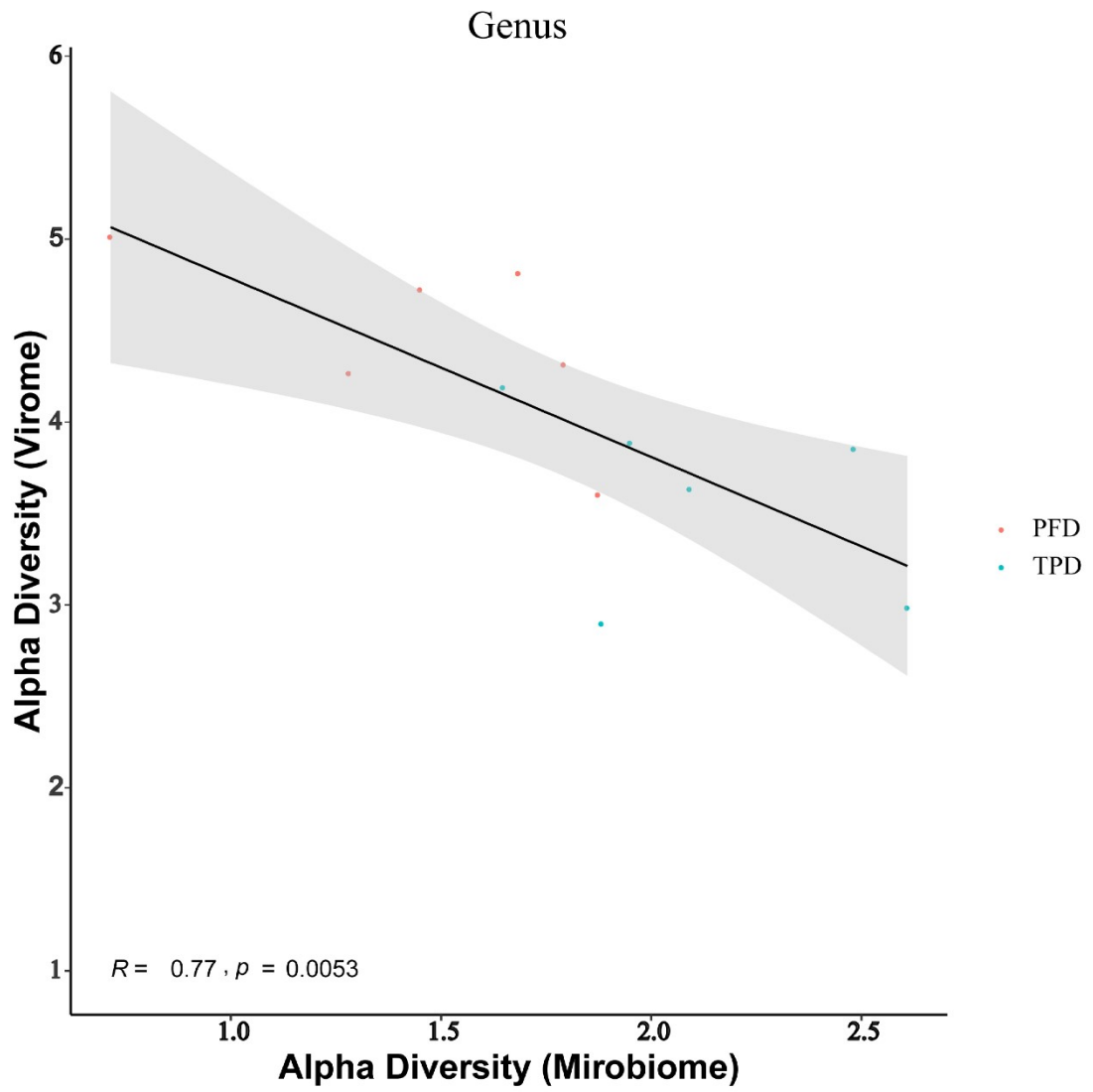
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32 Supplementary Fig. 4 Relative abundance of top 28 caudovirales bacteriophages at the

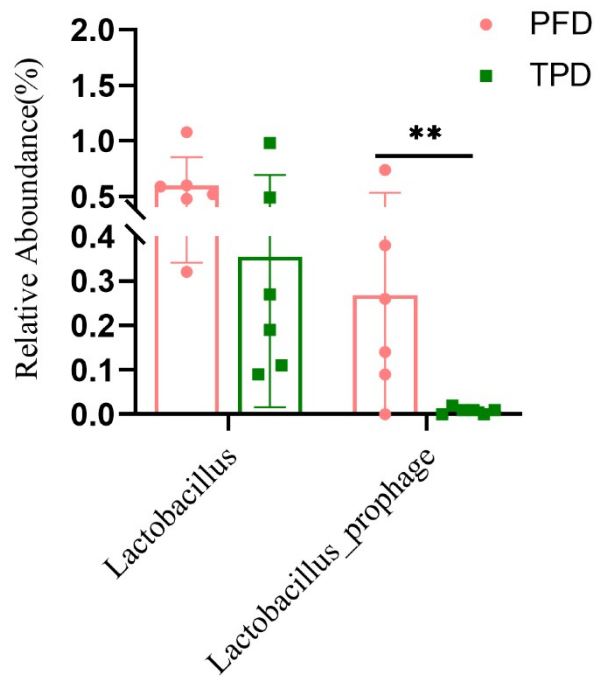
33 species level



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35 Supplementary Fig. 5 Virome diversity correlates with microbiome diversity in two

36 groups. (Spearman correlation coefficient = 0.77,  $p = 0.0053$ ,  $R^2 = 0.5929$ )



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38 Supplementary Fig.6 Relative abundance of *Lactobacillus* and  
 39 *Lactobacillus\_prophage*. The statistical significantly correlations were displayed as

40 \* $p < 0.05$ , \*\* $p < 0.01$ .

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## Supplementary table 1 AIN-93G feed formulation of mice chow food

Ingredient	kcal/g	g/kg	kcal/g
Com Starch	4	397.5	1590
Casein	4	200	800
Maltodextrin	4	132	528
Sucrose	4	100	400
Soybean Oil	9	70	630
Cellulose	0	50	0
Mineral MixAIN-93G-MX	1.6	35	56
Vitamin MixAIN-93-VM	3.9	10	39
L – Cystine	4	3	12
Choline Bitartrate	0	2.5	0
<b>Total</b>		<b>1000</b>	<b>4055</b>

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## Supplementary table 2 The result statistics of denovo virus identification

Sample	Total_base(Mb)	Total_num	Max_len	Min_len	N50	GC
Novel.viral.contig.final	4.57	2131	112567	300	5666	44.38%

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Supplementary table 3 The statistics of virus category

Sample	Phages	Other_virus	Unclassified
PFD.1	75.97%	10.80%	13.23%
PFD.2	47.46%	38.65%	13.89%
PFD.3	59.52%	1.45%	39.03%
PFD.4	89.43%	1.60%	8.97%
PFD.5	41.76%	0.29%	57.96%
PFD.6	35.81%	2.80%	61.40%
TPD.1	61.83%	0.52%	37.65%
TPD.2	86.96%	2.41%	10.63%
TPD.3	76.62%	0.99%	22.38%
TPD.4	79.10%	8.96%	11.94%
TPD.5	61.61%	0.23%	38.16%
TPD.6	93.15%	0.91%	5.94%

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Supplementary table 4 The statistics of RNA and DNA virus category

Sample	DNA	RNA	Unclassified
PFD.1	86.75%	0.02%	13.23%
PFD.2	86.09%	0.02%	13.89%
PFD.3	60.97%	0.00%	39.03%
PFD.4	91.03%	0.00%	8.97%
PFD.5	42.04%	0.00%	57.96%
PFD.6	38.60%	0.00%	61.40%
TPD.1	62.35%	0.00%	37.65%
TPD.2	89.37%	0.00%	10.63%
TPD.3	77.62%	0.00%	22.38%
TPD.4	88.06%	0.00%	11.94%
TPD.5	61.84%	0.00%	38.16%
TPD.6	94.06%	0.00%	5.94%

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