Frequency of target organs by mutagenicity in *Salmonella* for 564 carcinogens in rats and 442 carcinogens in mice in the Carcinogenic Potency Database.

<table>
<thead>
<tr>
<th>Target Organ</th>
<th>Rats All Chemicals (N=564)</th>
<th>Rats Mutagens (N=226)</th>
<th>Rats Nonmutagens (N=147)</th>
<th>Mice All Chemicals (N=442)</th>
<th>Mice Mutagens (N=192)</th>
<th>Mice Nonmutagens (N=143)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liver</td>
<td>222 (40%)</td>
<td>91 (40%)</td>
<td>47 (32%)</td>
<td>254 (57%)</td>
<td>102 (53%)</td>
<td>103 (72%)</td>
</tr>
<tr>
<td>Lung</td>
<td>58 (10%)</td>
<td>31 (14%)</td>
<td>5 (3%)</td>
<td>121 (27%)</td>
<td>58 (30%)</td>
<td>24 (17%)</td>
</tr>
<tr>
<td>Mammary gland</td>
<td>107 (19%)</td>
<td>60 (27%)</td>
<td>16 (11%)</td>
<td>22 (5%)</td>
<td>12 (6%)</td>
<td>7 (5%)</td>
</tr>
<tr>
<td>Kidney</td>
<td>94 (17%)</td>
<td>33 (15%)</td>
<td>43 (29%)</td>
<td>27 (6%)</td>
<td>12 (6%)</td>
<td>11 (8%)</td>
</tr>
<tr>
<td>Stomach</td>
<td>88 (16%)</td>
<td>48 (21%)</td>
<td>11 (7%)</td>
<td>69 (16%)</td>
<td>37 (19%)</td>
<td>17 (12%)</td>
</tr>
<tr>
<td>Vascular system</td>
<td>33 (6%)</td>
<td>21 (9%)</td>
<td>2 (1%)</td>
<td>64 (14%)</td>
<td>37 (19%)</td>
<td>14 (10%)</td>
</tr>
<tr>
<td>Hematopoietic system</td>
<td>57 (10%)</td>
<td>29 (13%)</td>
<td>17 (12%)</td>
<td>54 (12%)</td>
<td>23 (12%)</td>
<td>18 (13%)</td>
</tr>
<tr>
<td>Urinary bladder</td>
<td>52 (9%)</td>
<td>26 (12%)</td>
<td>17 (12%)</td>
<td>12 (3%)</td>
<td>8 (4%)</td>
<td>1</td>
</tr>
<tr>
<td>Nasal cavity/ turbinates</td>
<td>50 (9%)</td>
<td>19 (8%)</td>
<td>10 (7%)</td>
<td>6 (1%)</td>
<td>6 (3%)</td>
<td>1</td>
</tr>
<tr>
<td>Ear/Zymbal’s gland</td>
<td>42 (7%)</td>
<td>33 (15%)</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>2 (1%)</td>
</tr>
<tr>
<td>Esophagus</td>
<td>37 (7%)</td>
<td>15 (7%)</td>
<td>1</td>
<td>8 (2%)</td>
<td>5 (3%)</td>
<td>1</td>
</tr>
<tr>
<td>Skin</td>
<td>35 (6%)</td>
<td>23 (10%)</td>
<td>5 (3%)</td>
<td>3</td>
<td>3 (2%)</td>
<td>2 (1%)</td>
</tr>
<tr>
<td>Thyroid gland</td>
<td>37 (7%)</td>
<td>14 (6%)</td>
<td>15 (10%)</td>
<td>21 (5%)</td>
<td>11 (6%)</td>
<td>10 (7%)</td>
</tr>
<tr>
<td>Oral cavity</td>
<td>34 (6%)</td>
<td>19 (8%)</td>
<td>8 (5%)</td>
<td>4</td>
<td>3 (2%)</td>
<td>1</td>
</tr>
<tr>
<td>Large intestine</td>
<td>32 (6%)</td>
<td>23 (10%)</td>
<td>1</td>
<td>3</td>
<td>2 (1%)</td>
<td>1</td>
</tr>
<tr>
<td>Small intestine</td>
<td>29 (5%)</td>
<td>20 (9%)</td>
<td>2 (1%)</td>
<td>6 (1%)</td>
<td>4 (2%)</td>
<td>1</td>
</tr>
<tr>
<td>Uterus</td>
<td>26 (5%)</td>
<td>11 (5%)</td>
<td>6 (4%)</td>
<td>12 (3%)</td>
<td>8 (4%)</td>
<td>3 (2%)</td>
</tr>
<tr>
<td>Pancreas</td>
<td>26 (5%)</td>
<td>9 (4%)</td>
<td>9 (6%)</td>
<td>2</td>
<td>4 (2%)</td>
<td>1</td>
</tr>
<tr>
<td>Peritoneal cavity</td>
<td>27 (5%)</td>
<td>15 (7%)</td>
<td>8 (5%)</td>
<td>8 (2%)</td>
<td>3 (2%)</td>
<td>1</td>
</tr>
<tr>
<td>Central nervous system</td>
<td>21 (4%)</td>
<td>14 (6%)</td>
<td>2 (1%)</td>
<td>3</td>
<td>2 (1%)</td>
<td>1</td>
</tr>
<tr>
<td>Harderian gland</td>
<td>22 (4%)</td>
<td>16 (7%)</td>
<td>5 (3%)</td>
<td>11 (2%)</td>
<td>3 (2%)</td>
<td>2 (1%)</td>
</tr>
<tr>
<td>Clitoral/preputial gland</td>
<td>22 (4%)</td>
<td>16 (7%)</td>
<td>5 (3%)</td>
<td>11 (2%)</td>
<td>3 (2%)</td>
<td>2 (1%)</td>
</tr>
<tr>
<td>Testis</td>
<td>22 (4%)</td>
<td>8 (4%)</td>
<td>6 (4%)</td>
<td>4</td>
<td>2 (1%)</td>
<td>1</td>
</tr>
<tr>
<td>Adrenal gland</td>
<td>18 (3%)</td>
<td>7 (3%)</td>
<td>7 (5%)</td>
<td>8 (2%)</td>
<td>3 (2%)</td>
<td>5 (3%)</td>
</tr>
<tr>
<td>Subcutaneous tissue</td>
<td>15 (3%)</td>
<td>11 (5%)</td>
<td>3</td>
<td>5 (1%)</td>
<td>3 (2%)</td>
<td>1</td>
</tr>
<tr>
<td>Ovary</td>
<td>10 (2%)</td>
<td>4 (2%)</td>
<td>5 (3%)</td>
<td>4</td>
<td>2 (1%)</td>
<td>1</td>
</tr>
<tr>
<td>Pituitary gland</td>
<td>7 (1%)</td>
<td>2 (1%)</td>
<td>4 (3%)</td>
<td>8 (2%)</td>
<td>2 (1%)</td>
<td>4 (3%)</td>
</tr>
<tr>
<td>Spleen</td>
<td>7 (1%)</td>
<td>4 (2%)</td>
<td>2 (1%)</td>
<td>5</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Bone</td>
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<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Prostate</td>
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<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gall bladder</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vagina</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Myocardium</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*a* In the CPDB 768 chemicals are evaluated by a published author as having induced tumors at a particular target site; however, mutagenicity in *Salmonella* is included in the CPDB for only 502 of them. The column “All Chemicals” reports results for all carcinogens in each species, whether mutagenicity results are available or not. A chemical is classified as mutagenic in the *Salmonella* assay if it was evaluated as either “mutagenic” or
“weakly mutagenic” by Zeiger (Gold and Zeiger, eds., *Handbook of Carcinogenic Potency and Genotoxicity Databases*, CRC Press, 1997, pp. 687-729; Zeiger, pers. comm.) or as “positive” by the Gene-Tox Program (Kier et al., *Mutat. Res.* 168: 69-240, 1986; Auletta, pers. comm.). Other chemicals evaluated for mutagenicity by these two sources are reported as non-mutagens.

\[ b \] \%

= Percentage of rat carcinogens or mouse carcinogens that induce tumors at the given site. Many chemicals induce tumors at more than one site, and these are counted at each relevant target site. Therefore, many chemicals are counted more than once, and percentages cannot be added. For example, of 222 chemicals that induce liver tumors in rats, 138 (62\%) are positive in at least one other site in rats.