

Supplemental Table S3A. Individual disease/abnormality incidence in F3 generation female rats of control and dioxin lineages.

| Animal | Animal ID | Sex | Age | Puberty | PFL | PCO | Kidney | Tumor | Obesity | Total Disease |
|--------|------------|-----|------|---------|-----|-----|--------|-------|---------|---------------|
| C1 | DCF1-3-1-2 | F | 1 Yr | - | | | - | - | - | |
| C2 | DCF1-3-1-3 | F | 1 Yr | - | | | - | - | - | |
| C3 | DCF1-3-1-4 | F | 1 Yr | - | | | - | - | - | |
| C4 | DCF1-3-1-5 | F | 1 Yr | - | | | | - | - | |
| C5 | DCS0-3-2-2 | F | 1 Yr | - | | | - | - | - | |
| C6 | DCS0-3-2-3 | F | 1 Yr | - | - | - | - | - | - | |
| C7 | DCS0-3-2-4 | F | 1 Yr | - | | | | - | - | |
| C8 | DCS0-3-2-5 | F | 1 Yr | - | | | | - | - | |
| C9 | DCL1-3-3-2 | F | 1 Yr | - | - | - | + | - | - | 1 |
| C10 | DCL1-3-3-3 | F | 1 Yr | - | | | | + | - | 1 |
| C11 | DCB1-3-4-2 | F | 1 Yr | - | | | - | - | - | |
| C12 | DCB1-3-4-3 | F | 1 Yr | - | | | - | - | - | |
| C13 | DCB1-3-4-4 | F | 1 Yr | - | | | - | - | - | |
| C14 | DCB1-3-4-5 | F | 1 Yr | - | - | - | | - | - | |
| C15 | DCB1-3-4-6 | F | 1 Yr | - | | | | - | - | |
| C16 | DCS0-3-5-2 | F | 1 Yr | - | | | + | - | - | 1 |
| C17 | DCS0-3-5-3 | F | 1 Yr | - | | | - | - | - | |
| C18 | DCS0-3-5-4 | F | 1 Yr | - | | | - | - | - | |
| C19 | DCS0-3-5-5 | F | 1 Yr | - | | | - | - | - | |
| C20 | DCS0-3-5-6 | F | 1 Yr | - | - | - | | - | - | |
| C21 | DCS0-3-6-2 | F | 1 Yr | - | | | + | - | - | 1 |
| C22 | DCS0-3-6-3 | F | 1 Yr | - | + | - | - | - | - | 1 |
| C23 | DCB1-3-7-2 | F | 1 Yr | - | - | - | | - | - | |

Supplemental Table S3A (continued)

| Animal | Animal ID | Sex | Age | Puberty | PFL | PCO | Kidney | Tumor | Obesity | Total Disease |
|--------|-------------|-----|-------|---------|-----|-----|--------|-------|---------|---------------|
| C24 | DCB1-3-7-3 | F | 1 Yr | - | | | - | - | - | |
| C25 | DCB1-3-7-4 | F | 1 Yr | - | | | | - | - | |
| C26 | DCB1-3-7-5 | F | 1 Yr | - | | | | - | - | |
| C27 | DCB1-3-7-6 | F | 1 Yr | - | | | | - | - | |
| C28 | DCR1-3-8-2 | F | 1 Yr | - | - | - | | - | - | |
| C29 | DCR1-3-8-3 | F | 1 Yr | - | | | - | - | - | |
| C30 | DCR1-3-8-4 | F | 1 Yr | - | | | - | - | - | |
| C31 | DCR1-3-8-5 | F | 1 Yr | - | | | | - | - | |
| C32 | DCF1-3-9-2 | F | 1 Yr | - | - | - | | - | - | |
| C33 | DCF1-3-9-3 | F | 1 Yr | - | | | - | - | - | |
| C34 | DCF1-3-9-4 | F | 1 Yr | + | | | - | - | - | 1 |
| C35 | DCF1-3-9-5 | F | 1 Yr | | | | | - | - | |
| C36 | DCB1-3-10-2 | F | 1 Yr | - | | | | - | - | |
| C37 | DCB1-3-10-3 | F | 1 Yr | - | - | - | - | - | - | |
| C38 | DCB1-3-10-4 | F | 1 Yr | - | | | - | - | - | |
| C39 | DCL1-3-11-2 | F | 10 m. | - | | | | + | - | 1 |
| C40 | DCL1-3-11-3 | F | 1 Yr | - | | | - | - | - | |
| C41 | DCL1-3-11-4 | F | 1 Yr | - | | | - | - | - | |
| C42 | DCL1-3-11-5 | F | 1 Yr | - | | | - | - | - | |
| C43 | DCL1-3-11-6 | F | 1 Yr | - | | | | - | - | |
| C44 | DCL1-3-11-8 | F | 11 m. | - | | | | + | - | 1 |
| C45 | DCB1-3-12-2 | F | 1 Yr | - | | | | - | - | |
| C46 | DCB1-3-12-3 | F | 1 Yr | - | | | - | - | - | |
| C47 | DCL1-3-13-1 | F | 1 Yr | - | | | - | - | - | |
| C48 | DCL1-3-13-2 | F | 1 Yr | - | | | | - | - | |

Supplemental Table S3A (continued)

| Animal | Animal ID | Sex | Age | Puberty | PFL | PCO | Kidney | Tumor | Obesity | Total Disease |
|--------|-------------|-----|-------|---------|-----|-----|--------|-------|---------|---------------|
| C49 | DCL1-3-13-3 | F | 1 Yr | - | | | - | - | - | |
| C50 | DCS0-3-14-2 | F | 1 Yr | - | | | | - | - | |
| C51 | DCS0-3-14-3 | F | 1 Yr | - | | | - | - | - | |
| C52 | DCL1-3-15-2 | F | 1 Yr | + | | | - | - | - | 1 |
| C53 | DCL1-3-15-3 | F | 1 Yr | + | | | + | - | - | 2 |
| C54 | DCL1-3-15-4 | F | 1 Yr | + | | | + | - | - | 2 |
| C55 | DCL1-3-15-5 | F | 1 Yr | - | | | | - | - | |
| C56 | DCS0-3-16-2 | F | 1 Yr | - | | | | - | - | |
| C57 | DCS0-3-16-3 | F | 1 Yr | - | | | - | - | - | |
| C58 | DCS0-3-16-4 | F | 1 Yr | - | | | - | - | - | |
| C59 | DCS0-3-16-5 | F | 1 Yr | - | | | | - | - | |
| C60 | DCR1-3-17-1 | F | 1 Yr | - | | | | - | - | |
| C61 | DCR1-3-17-2 | F | 1 Yr | - | | | - | - | - | |
| C62 | DCR1-3-17-3 | F | 1 Yr | - | | | - | - | - | |
| C63 | DCR1-3-17-4 | F | 1 Yr | + | | | | - | - | 1 |
| C64 | DCS0-3-18-2 | F | 1 Yr | | | | | - | - | |
| C65 | DCS0-3-18-3 | F | 1 Yr | | | | - | - | - | |
| C66 | DCS0-3-18-4 | F | 1 Yr | | | | - | - | - | |
| C67 | DCF1-3-19-1 | F | 1 Yr | - | | | | - | - | |
| C68 | DCF1-3-19-2 | F | 1 Yr | - | | | - | - | - | |
| C69 | DCF1-3-19-3 | F | 11 m. | - | | | | + | - | |

| Animal | Animal ID | Sex | Age | Puberty | PFL | PCO | Kidney | Tumor | Obesity | Total Disease |
|--------|-------------|-----|------|---------|-----|-----|--------|-------|---------|---------------|
| H1 | DHG2-3-1-3 | F | 1 Yr | - | + | + | - | - | - | 2 |
| H2 | DHB0-3-2-3 | F | 1 Yr | - | | | - | - | - | |
| H3 | DHB0-3-2-4 | F | 1 Yr | - | + | + | - | - | - | 2 |
| H4 | DHB0-3-2-5 | F | 1 Yr | - | | | - | - | - | |
| H5 | DHG2-3-3-3 | F | 1 Yr | - | | | - | - | - | |
| H6 | DHG2-3-3-4 | F | 1 Yr | - | + | + | - | - | - | 2 |
| H7 | DHG2-3-3-5 | F | 1 Yr | - | | | - | - | - | |
| H8 | DHW1-3-4-3 | F | 1 Yr | - | + | + | - | - | - | 2 |
| H9 | DHW1-3-5-3 | F | 1 Yr | - | | | - | - | - | |
| H10 | DHW1-3-5-4 | F | 1 Yr | - | - | + | - | - | - | 1 |
| H11 | DHW1-3-5-5 | F | 1 Yr | + | | | + | - | - | 2 |
| H12 | DHB0-3-6-2 | F | 1 Yr | + | - | + | - | - | - | 2 |
| H13 | DHB0-3-6-3 | F | 1 Yr | + | | | - | - | - | 1 |
| H14 | DHG2-3-7-2 | F | 1 Yr | - | + | + | - | - | - | 2 |
| H15 | DHK2-3-8-3 | F | 1 Yr | - | + | + | + | - | - | 3 |
| H16 | DHK2-3-8-4 | F | 1 Yr | - | | | - | + | - | 1 |
| H17 | DHK2-3-8-5 | F | 1 Yr | + | | | - | - | - | 1 |
| H18 | DHW1-3-9-3 | F | 1 Yr | + | | | + | - | - | 2 |
| H19 | DHW1-3-9-4 | F | 1 Yr | + | - | + | + | - | - | 3 |
| H20 | DHW1-3-9-5 | F | 1 Yr | - | | | - | - | - | |
| H21 | DHW1-3-9-6 | F | 1 Yr | - | | | | - | - | |
| H22 | DHG2-3-10-1 | F | 1 Yr | + | | | - | - | - | 1 |
| H23 | DHG2-3-10-2 | F | 1 Yr | + | | | - | - | - | 1 |
| H24 | DHK2-3-11-1 | F | 1 Yr | + | | | - | - | - | 1 |
| H25 | DHK2-3-11-2 | F | 1 Yr | + | | | - | - | - | 1 |
| H26 | DHK2-3-11-3 | F | 1 Yr | + | | | - | - | - | 1 |

| Animal | Animal ID | Sex | Age | Puberty | PFL | PCO | Kidney | Tumor | Obesity | Total Disease |
|--------|-------------|-----|-------|---------|-----|-----|--------|-------|---------|---------------|
| H27 | DHK2-3-11-4 | F | 10 m. | + | | | | + | - | 2 |
| H28 | DHK2-3-11-5 | F | 1 Yr | + | | | | - | - | 1 |
| H29 | DHK2-3-11-6 | F | 1 Yr | + | | | | - | - | 1 |
| H30 | DHB0-3-12-1 | F | 1 Yr | - | | | - | - | - | |
| H31 | DHB0-3-12-2 | F | 1 Yr | - | | | + | - | - | 1 |
| H32 | DHB0-3-12-3 | F | 1 Yr | - | | | - | - | | |
| H33 | DHW1-3-13-1 | F | 1 Yr | + | | | - | - | | 1 |
| H34 | DHW1-3-13-2 | F | 10 m. | + | | | - | - | | 1 |
| H35 | DHW1-3-13-3 | F | 1 Yr | + | | | | - | | 1 |
| H36 | DHW1-3-13-4 | F | 1 Yr | + | | | + | - | | 2 |
| H37 | DHW1-3-13-6 | F | 1 Yr | + | | | | - | | 1 |
| H38 | DHG2-3-14-1 | F | 1 Yr | + | | | - | - | | 1 |
| H39 | DHG2-3-14-2 | F | 1 Yr | + | | | - | - | | 1 |
| H40 | DHG2-3-14-3 | F | 1 Yr | + | | | - | - | | 1 |
| H41 | DHG2-3-14-5 | F | 1 Yr | + | | | | + | | 2 |

A '+' indicates the presence and a '-' indicates the absence of disease. Animal IDs with a 'C' belong to control lineage and those with an 'H' belong to dioxin lineage. PFL = Primordial follicle loss; PCO = Polycystic ovarian disease. See 'Materials and Methods' section for disease assessment in rats. The number of animals per litter (litter representation) mean \pm SEM between the control versus dioxin lineage for each specific disease/abnormality was not found to be statistically different ($p > 0.05$) for litter representation indicating no litter bias.

Supplemental Table S3B. Individual disease/abnormality incidence in F3 generation male rats of control and dioxin lineages.

| Animal | Animal ID | Sex | Age | Pubertal | Testis | Prostate | Kidney | Tumor | Obesity | Total Disease |
|--------|-------------|-----|------|----------|--------|----------|--------|-------|---------|---------------|
| C1 | DCF1-3-1-8 | M | 1 Yr | - | + | | - | - | - | 1 |
| C2 | DCF1-3-1-9 | M | 1 Yr | - | | - | - | - | - | |
| C3 | DCF1-3-1-10 | M | 1 Yr | - | | - | + | - | - | 1 |
| C4 | DCS0-3-2-11 | M | 1 Yr | - | - | - | - | - | - | |
| C5 | DCS0-3-2-12 | M | 1 Yr | - | - | - | - | - | - | |
| C6 | DCS0-3-2-13 | M | 1 Yr | - | - | | - | - | - | |
| C7 | DCL1-3-3-6 | M | 1 Yr | - | - | - | | - | - | |
| C8 | DCL1-3-3-7 | M | 1 Yr | - | - | - | | - | - | |
| C9 | DCB1-3-4-9 | M | 1 Yr | - | - | + | - | - | - | 1 |
| C10 | DCB1-3-4-10 | M | 1 Yr | - | - | - | - | - | - | |
| C11 | DCB1-3-4-11 | M | 1 Yr | - | - | - | - | - | - | |
| C12 | DCB1-3-4-12 | M | 1 Yr | - | | | | - | - | |
| C13 | DCB1-3-4-13 | M | 1 Yr | - | | | | - | - | |
| C14 | DCS0-3-5-9 | M | 1 Yr | - | - | | - | - | - | |
| C15 | DCS0-3-5-10 | M | 1 Yr | - | - | - | - | - | - | |
| C16 | DCS0-3-5-11 | M | 1 Yr | - | - | - | - | - | - | |
| C17 | DCS0-3-6-6 | M | 1 Yr | - | - | | - | - | - | |
| C18 | DCS0-3-6-7 | M | 1 Yr | - | - | - | - | - | - | |
| C19 | DCS0-3-6-8 | M | 1 Yr | - | + | - | - | - | - | 1 |
| C20 | DCB1-3-7-9 | M | 1 Yr | - | - | | + | - | - | 1 |
| C21 | DCB1-3-7-10 | M | 1 Yr | - | - | - | - | - | - | |
| C22 | DCB1-3-7-11 | M | 1 Yr | - | - | - | - | - | - | |
| C23 | DCR1-3-8-7 | M | 1 Yr | - | - | - | - | - | - | |
| C24 | DCR1-3-8-8 | M | 1 Yr | - | - | - | - | - | - | |

Supplemental Table S3B (continued)

| Animal | Animal ID | Sex | Age | Pubertal | Testis | Prostate | Kidney | Tumor | Obesity | Total Disease |
|--------|--------------|-----|------|----------|--------|----------|--------|-------|---------|---------------|
| C25 | DCF1-3-9-11 | M | 1 Yr | - | - | - | - | - | - | |
| C26 | DCF1-3-9-12 | M | 1 Yr | - | - | - | - | - | - | |
| C27 | DCF1-3-9-13 | M | 1 Yr | + | - | - | - | - | - | 1 |
| C28 | DCB1-3-10-9 | M | 9 m. | - | - | - | - | + | - | 1 |
| C29 | DCB1-3-10-10 | M | 1 Yr | - | - | - | - | - | - | |
| C30 | DCB1-3-10-11 | M | 1 Yr | - | - | - | - | - | - | |
| C31 | DCB1-3-10-12 | M | 1 Yr | - | + | - | - | - | - | 1 |
| C32 | DCB1-3-10-13 | M | 11m. | - | - | - | - | + | - | 1 |
| C33 | DCL1-3-11-9 | M | 1 Yr | - | - | - | - | - | - | |
| C34 | DCL1-3-11-10 | M | 1 Yr | - | - | + | - | - | - | 1 |
| C35 | DCL1-3-11-11 | M | 1 Yr | - | - | - | - | - | - | |
| C36 | DCB1-3-12-6 | M | 1 Yr | - | - | - | - | - | - | |
| C37 | DCB1-3-12-7 | M | 1 Yr | - | + | + | - | - | - | 2 |
| C38 | DCB1-3-12-8 | M | 1 Yr | - | + | - | - | - | - | 1 |
| C39 | DCL1-3-13-4 | M | 1 Yr | - | - | - | - | - | - | |
| C40 | DCS0-3-14-5 | M | 1 Yr | - | - | - | - | - | - | |
| C41 | DCS0-3-14-6 | M | 1 Yr | - | - | - | - | - | - | |
| C42 | DCS0-3-14-7 | M | 1 Yr | - | - | - | - | - | - | |
| C43 | DCL1-3-15-7 | M | 1 Yr | + | - | - | - | - | - | 1 |
| C44 | DCL1-3-15-8 | M | 1 Yr | + | - | + | - | - | - | 2 |
| C45 | DCL1-3-15-9 | M | 1 Yr | + | - | - | - | - | - | 1 |
| C46 | DCS0-3-16-9 | M | 1 Yr | - | - | - | - | - | - | |
| C47 | DCS0-3-16-10 | M | 1 Yr | - | - | - | - | - | - | |
| C48 | DCS0-3-16-11 | M | 1 Yr | - | - | - | - | - | - | |
| C49 | DCS0-3-16-13 | M | 1 Yr | - | - | - | - | - | - | |

| Animal | Animal ID | Sex | Age | Pubertal | Testis | Prostate | Kidney | Tumor | Obesity | Total Disease |
|--------|--------------|-----|------|----------|--------|----------|--------|-------|---------|---------------|
| C50 | DCR1-3-17-8 | M | 1 Yr | - | | - | - | - | - | |
| C51 | DCS0-3-18-10 | M | 1 Yr | | | - | + | - | - | 1 |
| C52 | DCS0-3-18-11 | M | 1 Yr | | + | - | + | - | - | 2 |
| C53 | DCS0-3-18-12 | M | 1 Yr | | - | | - | - | - | |
| C54 | DCF1-3-19-4 | M | 1 Yr | - | - | | - | - | - | |
| C55 | DCF1-3-19-5 | M | 1 Yr | - | - | - | | - | - | |
| C56 | DCF1-3-19-6 | M | 1 Yr | - | - | - | - | - | - | |

| Animal | Animal ID | Sex | Age | Pubertal | Testis | Prostate | Kidney | Tumor | Obesity | Total Disease |
|--------|-------------|-----|------|----------|--------|----------|--------|-------|---------|---------------|
| H1 | DHG2-3-1-7 | M | 1 Yr | - | - | | - | - | - | |
| H2 | DHG2-3-1-8 | M | 1 Yr | - | - | - | - | - | - | |
| H3 | DHG2-3-1-9 | M | 1 Yr | - | - | - | - | - | - | |
| H4 | DHB0-3-2-14 | M | 1 Yr | - | - | - | - | - | - | |
| H5 | DHB0-3-2-15 | M | 1 Yr | + | - | - | - | - | - | 1 |
| H6 | DHG2-3-3-6 | M | 1 Yr | - | - | - | + | - | - | 1 |
| H7 | DHG2-3-3-9 | M | 1 Yr | - | - | - | + | - | - | 1 |
| H8 | DHG2-3-3-10 | M | 1 Yr | - | - | - | + | - | - | 1 |
| H9 | DHW1-3-4-6 | M | 1 Yr | - | - | - | - | - | - | |
| H10 | DHW1-3-4-7 | M | 1 Yr | - | | - | - | - | - | |
| H11 | DHW1-3-4-8 | M | 1 Yr | + | - | - | - | - | - | 1 |
| H12 | DHW1-3-4-9 | M | 9 m. | - | | | | - | - | |
| H13 | DHB0-3-6-5 | M | 1 Yr | - | - | - | - | - | - | |
| H14 | DHB0-3-6-6 | M | 1 Yr | - | - | - | - | - | - | |
| H15 | DHB0-3-6-7 | M | 1 Yr | - | - | + | - | - | - | 1 |
| H16 | DHG2-3-7-4 | M | 1 Yr | - | - | - | - | - | - | |
| H17 | DHG2-3-7-5 | M | 1 Yr | - | - | - | + | - | - | 1 |

| | | | | | | | | | | |
|-----|--------------|---|------|---|---|---|---|---|---|---|
| H18 | DHG2-3-7-6 | M | 1 Yr | - | + | - | - | - | - | 1 |
| H19 | DHK2-3-8-10 | M | 1 Yr | - | + | - | - | - | - | 1 |
| H20 | DHK2-3-8-11 | M | 1 Yr | - | - | - | + | - | - | 1 |
| H21 | DHK2-3-8-12 | M | 1 Yr | - | - | - | - | - | - | |
| H22 | DHW1-3-9-10 | M | 1 Yr | - | - | - | - | - | - | |
| H23 | DHW1-3-9-11 | M | 1 Yr | - | - | - | - | - | - | |
| H24 | DHG2-3-10-3 | M | 1 Yr | - | + | - | - | - | - | 1 |
| H25 | DHG2-3-10-4 | M | 1 Yr | - | - | - | - | - | - | |
| H26 | DHG2-3-10-5 | M | 1 Yr | - | - | - | + | + | - | 2 |
| H27 | DHG2-3-10-6 | M | 1 Yr | - | | | | - | - | |
| H28 | DHG2-3-10-7 | M | 1 Yr | - | | | | - | - | |
| H29 | DHG2-3-10-8 | M | 1 Yr | - | | | | - | - | |
| H30 | DHK2-3-11-9 | M | 1 Yr | - | - | - | - | - | - | |
| H31 | DHK2-3-11-10 | M | 1 Yr | - | + | - | - | - | - | 1 |
| H32 | DHK2-3-11-11 | M | 1 Yr | - | + | - | - | - | - | 1 |
| H33 | DHB0-3-12-5 | M | 1 Yr | - | + | - | - | - | - | 1 |
| H34 | DHB0-3-12-6 | M | 1 Yr | - | + | - | + | - | - | 2 |
| H35 | DHB0-3-12-7 | M | 1 Yr | - | - | - | + | - | - | 1 |
| H36 | DHB0-3-12-8 | M | 1 Yr | - | | | | - | - | |
| H37 | DHB0-3-12-10 | M | 1 Yr | - | | | | - | - | |
| H38 | DHW1-3-13-7 | M | 1 Yr | - | + | - | + | - | - | 2 |
| H39 | DHW1-3-13-8 | M | 1 Yr | - | - | - | - | - | - | |
| H40 | DHW1-3-13-9 | M | 1 Yr | - | - | - | + | - | - | 1 |
| H41 | DHG2-3-14-6 | M | 1 Yr | - | - | - | - | - | - | |
| H42 | DHG2-3-14-7 | M | 1 Yr | - | - | - | - | - | - | |
| H43 | DHG2-3-14-8 | M | 1 Yr | - | - | - | - | - | - | |
| H44 | DHG2-3-14-9 | M | 1 Yr | - | | | | - | - | |

| | | | | | | |
|-----|--------------|---|------|---|---|---|
| H45 | DHG2-3-14-10 | M | 1 Yr | - | - | - |
|-----|--------------|---|------|---|---|---|

A '+' indicates the presence and a '-' indicates the absence of disease. Animal IDs with a 'C' belong to control lineage and those with an 'H' belong to dioxin lineage. See 'Materials and Methods' section for disease assessment in rats. The number of animals per litter (litter representation) mean \pm SEM between the control versus dioxin lineage for each specific disease/abnormality was not found to be statistically different ($p > 0.05$) for litter representation indicating no litter bias.