Supplemental Tables

Table S1<u>I</u>. Incidence rate (95% CI) and hazard ratios (95% CI) of atrial fibrillation in association with galectin-3 quartiles, ARIC, 1996 – 2013.

| Atrial fibrillation | | P for trend | | | |
|---------------------|--------------------|--|---|---|-------------|
| | Q1 | Q2 | Q3 | Q4 | P for trend |
| Events, n | 264 | 289 | 253 | 379 | - |
| Person-years | 30522 | 30466 | 29321 | 28249 | - |
| Incidence rate* | 8.6 (7.7 – 9.8) | 9.5 (8.4 – 10.6) | 8.6 (7.6 – 9.8) | 13.4 (12.1 – 14.8) | - |
| Model 1 | 1 (Referent) | 1.08 (0.91 – 1.28) | 1.00 (0.84 – 1.19) | 1.55 (1.32 – 1.84) | < 0.0001 |
| Model 2 | 1 (Referent) | 1.05 (0.89 – 1.24) | 0.91 (0.76 – 1.09) | 1.24 (1.04 – 1.48) | 0.02 |
| Model 3 | 1 (Referent) | $ \begin{array}{c} 1.13 \\ (0.95 - 1.35) \end{array} $ | 1.01 (0.83 – 1.24) | 1.42 (1.14 – 1.77) | 0.002 |
| Model 4 | 1 (Referent) | 1.06 (0.88 – 1.26) | 0.94 (0.77 – 1.14) | 1.23 (0.99 – 1.54) | 0.05 |
| Model 5 | 1 (Referent) | 1.06 (0.88 1.26) | 0.93 (0.76 1.14) | 1.23 (0.99 1.54) | 0.05 |

^{*}Incidence rate is unadjusted and per 1,000 person-years.

Model 1: adjusted for age (continuous), race (white, black) and sex (female, male).

Model 2: Model 1 plus systolic blood pressure (continuous), blood pressure medications (yes, no), BMI (continuous), height (continuous), diabetes status (yes, no), total cholesterol (continuous), smoking status (current, former, never) and eGFR (continuous).

Model 3: Model 2 plus SNP rs4644 (AA, AC, CC).

Model 4: Model 3 plus ln NT-proBNP (continuous), ln CRP (continuous), and ln TnT (continuous).

Model 5: Model 4 plus left atrial abnormality (yes, no).

Table SII2. Hazard ratios (95% CI) of atrial fibrillation in association with galectin-3 quartiles accounting for incident coronary disease and heart failure as time dependent variables, ARIC, 1996 – 2013.

| | Galectin-3 (ng/ml) | | | | P for trend |
|---------------------------|--------------------|---------------------------------|---------------------------------|---|-------------------------------|
| | Q1 | Q2 | Q3 | Q4 | P for trend |
| CHD*, n | 155 | 134 | 153 | 202 | - |
| Heart failure*, n | 163 | 189 | 240 | 343 | - |
| Hazard ratio [†] | 1 (Referent) | 1.0 <u>5</u> 6 (0.88 – 1.26) | 0.88 (0.72 – 1.0 <u>8</u> 7) | 1. <u>0910</u> (0.88 – 1.3 <u>6</u> 7) | 0.4 <u>6</u> 4 |

CHD: coronary heart disease.

^{*} Events occurred after onset of study but before diagnosis of atrial fibrillation

[†] Adjusting for age (continuous), race (white, black) and sex (female, male), systolic blood pressure (continuous), blood pressure medications (yes, no), BMI (continuous), height (continuous), diabetes status (yes, no), total cholesterol (continuous), smoking status (current, former, never). SNP rs4644 (AA, AC, CC), eGFR (continuous), ln NT-proBNP (continuous), ln CRP (continuous), and ln TnT (continuous), and left atrial abnormality (yes, no).

Table SIII3. Race-specific incidence rate (95% CI) and hazard ratios (95% CI) of atrial fibrillation in relation to *LGALS3* rs4644 genotype, ARIC, 1996 – 2013.

| Characteristics | | D.C. 4 1 | | |
|------------------------------|--------------|-----------------------|--|---------------|
| | CC | AC | AA | - P for trend |
| Whites | | | | |
| N (%) | 2303 (34.6) | 3209 (48.3) | 1137 (17.1) | = |
| Mean (SD) Galectin-3 (ng/mL) | 16.7 (3.9) | 13.9 (3.2) | 11.1 (2.5) | < 0.0001 |
| AF, n | 352 | 469 | 196 | - |
| Incidence rates* | 10.9 | 10.4 | 12.3 | |
| (95% CI) | (9.8 - 12.1) | (9.5 - 11.4) | (10.7 - 14.2) | - |
| Model 1 | 1 (Referent) | 0.95 (0.82 – 1.09) | $ \begin{array}{c} 1.10 \\ (0.92 - 1.31) \end{array} $ | 0.46 |
| Blacks | | | | |
| N (%) | 939 (52.6) | 714 (40.0) | 134 (7.5) | - |
| Mean (SD) Galectin-3 (ng/mL) | 17.3 (7.5) | 14.2 (3.6) | 11.6 (3.1) | < 0.0001 |
| AF, n | 94 | 63 | 11 | - |
| Incidence rates* | 7.0 | 6.3 | 5.7 | |
| (95% CI) | (5.7 - 8.6) | (4.9 - 8.1) | (3.1 - 10.3) | - |
| Model 1 | 1 (Referent) | 0.88 $(0.64 - 1.21)$ | 0.75 (0.40 – 1.41) | 0.28 |

AF: atrial fibrillation.

Model 1: adjusted for age (continuous), and sex (female, male) and, in blacks, for 10 principal components of ancestry.

^{*}Unadjusted incidence rates and per 1,000 person-years.