**Supplemental Table 1** - Demonstrates the number of AFD identified and ablated in each patient and the achieved ablation response on a per AFD basis.

| Patient ID | Number of AFD identified | Number of AFD ablated | Anatomical location of AFD | Ablation response | Ablation duration min |
|------------|----------------------------|-----------------------|---------------------------|-------------------|-----------------------|
| 1          | 5                          | 5                     | Lateral                   | No effect         | 2.1                   |
|            |                             |                       | Anterior/Mid septal       | SCL‡              | 2.4                   |
|            |                             |                       | Anterior LAA§             | SCL               | 3.1                   |
|            |                             |                       | Mid posterior             | SCL               | 2.1                   |
|            |                             |                       | Lateral                   | AT                | 2.5                   |
| 2          | 3                          | 3                     | Mid posterior             | No effect         | 1.8                   |
|            |                             |                       | Mid roof                  | SCL               | 2.5                   |
|            |                             |                       | LAA ridge/lateral         | No effect         | 2.3                   |
| 3          | 1                          | 1                     | Mid anterior              | AT                | 3.1                   |
| 4          | 0                          | 0                     | SR on PVI®                | SR                | /                     |
| 5          | 2                          | 2                     | LAA/Roof                  | SCL               | 2.8                   |
|            |                             |                       | Anterior                  | SCL               | 3.3                   |
| 6          | 4                          | 2                     | LAA/Roof                  | SCL               | 3.0                   |
|            |                             |                       | Mid anterior              | AT                | 2.8                   |
|            |                             |                       | Mid posterior             | Not targeted      |                       |
|   |   |   |    |    |   |   |
|---|---|---|---|---|---|---|
| Lateral | Not targeted |
| 7 | 4 | 3 | High anterior | SCL | 2.1 |
|   |   |   | Posterior roof | No effect | 2.9 |
|   |   |   | Endocardial proximal CS | AT | 3.2 |
|   |   |   | Mid anterior | Not targeted |
| 8 | 3 | 2 | Anterior RUPV | SCL | 3.1 |
|   |   |   | Roof/RUPV | AT | 2.1 |
|   |   |   | Anteroseptum | Not targeted |
| 9 | 3 | 2 | Mid anterior | SCL | 2.5 |
|   |   |   | Mid roof | SR | 1.9 |
|   |   |   | Endocardial CS distal | Not targeted |
| 10 | 0 | 0 | SR on PVI | SR | / |
| 11 | 3 | 2 | Septal | SCL | 3.0 |
|   |   |   | Roof | AT | 2.2 |
|   |   |   | Inferior RUPV | Not targeted |
| 12 | 3 | 3 | Mid lateral | SCL | 2.0 |
|   |   |   | Postero septal | No effect | 2.3 |
|   |   |   | Low posterior | AT | 2.9 |
| 13 | 3 | 2 | Low septal | SCL | 2.1 |
|   |   |   | Mid lateral | SR | 1.9 |
|   |  14  |  15  |  16  |  17  |  18  |  19  |
|---|------|------|------|------|------|------|
|   |      |      |      |      |      |      |
|   |  3   |  2   |  3   |  3   |  3   |  3   |
|   |  3   |  2   |  1   |  6   |  6   |  6   |
|   | Mid roof | Mid roof | High anterior | Roof/LAA | High anterior | Mid posterior |
|   | Not targeted | SCL | SCL | No effect | No effect | No effect |
|   | Low septum | SCL | SCL | No effect | No effect | No effect |
|   | Low anterior | AT | Mid roof | No effect | No effect | No effect |
|   | Posterior/Lateral | SCL | Mid roof | No effect | No effect | No effect |
|   | Mid roof | Lateral | Mid roof | Mid roof | Mid anterior | Anteroseptum |
|   | No effect | SCL | SCL | SCL | SCL | No effect |
|   | No effect | SCL | SCL | SCL | SCL | No effect |
|   | No effect | SCL | SCL | SCL | SCL | No effect |
|   | No effect | SCL | SCL | SCL | SCL | No effect |
|   | No effect | SR | No effect | No effect | No effect | No effect |
|   | No effect | SCL | No effect | No effect | No effect | No effect |
|   |   |   | Area          | Effect     | Type  | Value |
|---|---|---|---------------|-----------|-------|-------|
| 20| 5 | 4 | Posterior/Inferior | No effect | SR    | 2.8   |
|   |   |   | LAA/roof       | SCL       | 2.3   |
|   |   |   | Low anterior   | SCL       | 3.1   |
|   |   |   | Mid lateral    | AT        | 2.2   |
|   |   |   | Septal         | Not targeted |
| 21| 2 | 2 | High posterior | SCL       | 2.8   |
|   |   |   | Mid anterior   | AT        | 2.1   |
| 22| 4 | 4 | Lateral        | SCL       | 2.1   |
|   |   |   | LAA/roof       | SCL       | 3.2   |
|   |   |   | RUPV/Anteroseptum | No effect | 2.6   |
|   |   |   | Mid Septum     | No effect | 3.4   |
| 23| 3 | 2 | High posterior | SCL       | 2.8   |
|   |   |   | Mid anterior   | AT        | 3.4   |
|   |   |   | LAA/roof       | Not targeted |
| 24| 3 | 2 | Mid anterior   | SCL       | 2.8   |
|   |   |   | Lateral        | SCL       | 3.3   |
|   |   |   | Anteroseptum   | Not targeted |
| 25| 2 | 2 | Mid posterior  | No effect | 2.2   |
|   |   |   | Location          | Action             | Parameter | Score |
|---|---|---|-------------------|-------------------|-----------|-------|
| 26| 3 | 3 | Mid anterior      | No effect         |           | 3.3   |
|   |   |   | Inferior RUPV     | SCL               |           | 3.1   |
|   |   |   | Septum            | SCL               |           | 2.8   |
| 27| 2 | 2 | Posterior/inferior| SCL               |           | 2.4   |
|   |   |   | Distal endocardial CS | AT          |           | 2.6   |
| 28| 2 | 2 | Roof/LAA          | SCL               |           | 2.9   |
|   |   |   | Low anterior      | SR                |           | 2.9   |
| 29| 3 | 2 | Mid lateral       | SCL               |           | 3.6   |
|   |   |   | Postero septum    | SR                |           | 2.7   |
|   |   |   | Mid roof          | Not targeted      |           | 3.5   |
| 30| 0 | 0 | AT on PVI         | AT                |           | /     |

†AFD- Atrial fibrillation driver
‡SCL- Slowing of CL
§LAA- Left atrial appendage
‖PVI- Pulmonary vein isolation
§CS- Coronary sinus
**RUPV- Right upper pulmonary vein