Effect of Polymorphism on *IL1A* to Cancer Susceptibility: Evidence based on 34,016 subjects

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**Running Title:** Association between *IL1A* polymorphism and cancer susceptibility
Supplementary table 1. Methodological quality of the included studies according to the Newcastle-Ottawa Scale.

| SNP     | First author             | Year | Adequacy of Case Definition | Representative-ness of the Cases | Selection of Controls | Definition of Controls | Comparability Cases/Controls | Ascertainment of Exposure | Same of Method of Ascertainment | Non-response rate |
|---------|--------------------------|------|------------------------------|---------------------------------|-----------------------|------------------------|-----------------------------|--------------------------|----------------------------------|-------------------|
| rs17561 | Bushley et al.           | 2004 | *                            | *                               | *                     | *                      | *                           | *                        | *                                | NA                |
| rs17561 | Ai et al.                | 2014 | *                            | *                               | **                    | *                      | *                           | *                        | *                                | NA                |
| rs17561 | Zidi et al.              | 2015 | *                            | *                               | *                     | *                      | *                           | *                        | *                                | NA                |
| rs17561 | Sousa et al.             | 2016 | *                            | *                               | *                     | *                      | *                           | *                        | *                                | NA                |
| rs17561 | Eaton et al.             | 2018 | *                            | *                               | *                     | *                      | *                           | *                        | *                                | NA                |
| rs1800587| Hefler et al.            | 2005 | *                            | *                               | *                     | *                      | *                           | *                        | *                                | NA                |
| rs1800587| Snoussi et al.           | 2005 | *                            | *                               | *                     | *                      | *                           | *                        | *                                | NA                |
| rs1800587| Wang et al.              | 2005 | *                            | *                               | *                     | *                      | *                           | *                        | *                                | NA                |
| rs1800587| Wang et al.              | 2005 | *                            | *                               | *                     | *                      | *                           | *                        | *                                | NA                |
| rs1800587| Ennas et al.             | 2008 | *                            | *                               | *                     | *                      | *                           | *                        | *                                | NA                |
| rs1800587| Zheng et al.             | 2013 | *                            | *                               | *                     | *                      | *                           | *                        | *                                | NA                |
| rs1800587| Hou et al.               | 2007 | *                            | *                               | *                     | *                      | *                           | *                        | *                                | NA                |
| rs1800587| Ai et al. et al.         | 2014 | *                            | *                               | *                     | *                      | *                           | *                        | *                                | NA                |
| rs1800587| Foster et al.            | 2000 | *                            | *                               | *                     | *                      | *                           | *                        | *                                | NA                |
| rs1800587| Bai et al.               | 2013 | *                            | *                               | *                     | *                      | *                           | *                        | *                                | NA                |
| rs1800587| Eaton et al.             | 2018 | *                            | *                               | *                     | *                      | *                           | *                        | *                                | NA                |
| rs1800587| Rothman et al.           | 2006 | *                            | *                               | *                     | *                      | *                           | *                        | *                                | NA                |
| rs1800587| Hoefft et al.            | 2008 | *                            | *                               | *                     | *                      | *                           | *                        | *                                | NA                |
| rs1800587| Abazis-Stamboulih et al. | 2007 | *                            | *                               | *                     | *                      | *                           | *                        | *                                | NA                |
| rs1800587| Yang et al.              | 2011 | *                            | *                               | *                     | *                      | *                           | *                        | *                                | NA                |
| rs1800587| Qu et al.                | 2014 | *                            | *                               | *                     | *                      | *                           | *                        | *                                | NA                |
| rs1800587| Sengüven et al.          | 2011 | *                            | *                               | *                     | *                      | *                           | *                        | *                                | NA                |
| rs1800587| Eshghyar et al.          | 2012 | *                            | *                               | *                     | *                      | *                           | *                        | *                                | NA                |
| rs1800587| Bushley et al.           | 2004 | *                            | *                               | *                     | *                      | *                           | *                        | *                                | NA                |
| rs1800587| Braicu et al.            | 2007 | *                            | *                               | *                     | *                      | *                           | *                        | *                                | NA                |
| rs1800587| Sáenz-López et al.       | 2008 | *                            | *                               | *                     | *                      | *                           | *                        | *                                | NA                |
| rs1800587| Grimm et al.             | 2004 | *                            | *                               | *                     | *                      | *                           | *                        | *                                | NA                |
| rs3783553 | Huang et al. | 2016 | * | * | * | * | * | * | * | NA |
| rs3783553 | Pu et al. | 2014 | * | * | * | * | * | * | * | NA |
| rs3783553 | Huang et al. | 2015 | * | * | * | * | * | * | * | NA |
| rs3783553 | Yan et al. | 2015 | * | * | * | * | * | * | * | NA |
| rs3783553 | Ma et al. | 2018 | * | * | * | * | * | * | * | NA |
| rs3783553 | Yu et al. | 2016 | * | * | * | * | * | * | * | NA |
| rs3783553 | Zeng et al. | 2014 | * | * | * | * | * | * | * | NA |
| rs3783553 | Zhang et al. | 2016 | * | * | * | * | * | * | * | NA |
| rs3783553 | Si et al. | 2013 | * | * | * | * | * | * | * | NA |
| rs3783553 | Gao et al. | 2009 | * | * | * | * | * | * | * | NA |
| rs3783553 | He et al. | 2010 | * | * | * | * | * | * | * | NA |
| rs3783553 | Du et al. | 2014 | * | * | * | * | * | * | * | NA |
| rs3783553 | Yang et al. | 2012 | * | * | * | * | * | * | * | NA |
| rs3783553 | Zhang et al. | 2015 | * | * | * | * | * | * | * | NA |
| rs3783553 | Zhang et al. | 2014 | * | * | * | * | * | * | * | NA |
| rs3783553 | Liao et al. | 2014 | * | * | * | * | * | * | * | NA |
| rs3783553 | Hashemi et al. | 2017 | * | * | * | * | * | * | * | NA |
| rs3783553 | Gao et al. | 2014 | * | * | * | * | * | * | * | NA |

This table identifies “high” quality choices with a “star”. A study can be awarded a maximum of 1 star for each numbered item within the Selection and Exposure categories. A maximum of 2 stars can be given for Comparability. *, Yes; NA, not applicable. (http://www.ohri.ca/programs/clinical_epidemiology/oxford.htm).
| SNP       | Comparison                  | Study omitted                  | Estimate (95% Confident Interval)       | Effect Model |
|-----------|-----------------------------|--------------------------------|----------------------------------------|--------------|
| rs17561   | G vs. T                     | Bushley et al. (2004)          | 1.088904 (0.85087001-1.3935289)        | Random       |
|           |                             | Ai et al. (2014)               | 0.91306001 (0.73810124-1.1294909)      |              |
|           |                             | Zidi et al. (2015)             | 0.97022778 (0.70064855-1.3435296)      |              |
|           |                             | Sousa et al. (2016)            | 1.0545193 (0.75914383-1.4648224)       |              |
|           |                             | Eaton et al. (2018)            | 1.0078928 (0.67916292-1.4957353)       |              |
|           |                             | Combined                       | 0.99916719 (0.77064547-1.2954531)      |              |
|           | G/G vs. T/T                 | Bushley et al. (2004)          | 0.97866172 (0.7041134-1.3602662)       | Fixed        |
|           |                             | Ai et al. (2014)               | 0.95101762 (0.69111377-1.3086623)      |              |
|           |                             | Zidi et al. (2015)             | 0.88702357 (0.62424099-1.260428)       |              |
|           |                             | Sousa et al. (2016)            | 0.98404658 (0.69199985-1.3993467)      |              |
|           |                             | Eaton et al. (2018)            | 1.1361963 (0.72247756-1.7868264)       |              |
|           |                             | Combined                       | 0.9709016 (0.70801326-1.3314015)       |              |
|           | G/T vs. T/T                 | Bushley et al. (2004)          | 1.1823874 (0.80174726-1.7437413)       | Random       |
|           |                             | Ai et al. (2014)               | 0.87386686 (0.56693363-1.3469714)      |              |
|           |                             | Zidi et al. (2015)             | 0.93803257 (0.58291847-1.5094821)      |              |
|           |                             | Sousa et al. (2016)            | 1.1203972 (0.67112821-1.8704172)       |              |
|           |                             | Eaton et al. (2018)            | 0.9892149 (0.53651553-1.8238915)       |              |
|           |                             | Combined                       | 1.012089 (0.664478-1.5415472)          |              |
|           | G/G+G/T vs. T/T             | Bushley et al. (2004)          | 1.1729126 (0.81055802-1.6972554)       | Random       |
|           |                             | Ai et al. (2014)               | 0.88139558 (0.60731953-1.2791588)      |              |
|           |                             | Zidi et al. (2015)             | 0.95207816 (0.61710626-1.4688764)      |              |
|           |                             | Sousa et al. (2016)            | 1.119821 (0.69166809-1.8130065)        |              |
|           |                             | Eaton et al. (2018)            | 1.0164936 (0.57230759-1.8054265)       |              |
|           |                             | Combined                       | 1.019146 (0.69271149-1.4994102)        |              |
|           | G/G vs. G/T+T/T             | Bushley et al. (2004)          | 0.92898875 (0.69154781-1.2479544)      | Fixed        |
|           |                             | Ai et al. (2014)               | 0.92099231 (0.69067943-1.2281049)      |              |
|           |                             | Zidi et al. (2015)             | 0.88969368 (0.63079309-1.2548566)      |              |
|           |                             | Sousa et al. (2016)            | 0.91457665 (0.67000544-1.2484233)      |              |
| Study                        | Odds Ratio | 95% CI          |
|-----------------------------|------------|-----------------|
| Eaton et al. (2018)         | 1.0723299  | (0.73254085-1.56973) |
| Combined                    | 0.93346229 | (0.70335961-1.2441569) |
| Foster et al. (2000)        | 1.1143869  | (1.0124718-1.2265606) |
| Bushley et al. (2004)       | 1.1356614  | (1.0361882-1.2446839) |
| Grimm et al. (2004)         | 1.110695   | (1.0099071-1.2215414) |
| Hefler et al. (2005)        | 1.1254553  | (1.020059-1.2417414) |
| Snoussi et al. (2005)       | 1.12156    | (1.0162802-1.237746) |
| Wang et al. (2005)          | 1.102581   | (1.0072669-1.2069144) |
| Wang et al. (2005)          | 1.1210726  | (1.0190992-1.2332498) |
| Rothman et al. (2006)       | 1.1349921  | (1.0174309-1.2661374) |
| Hou et al. (2007)           | 1.1343535  | (1.0282907-1.2513561) |
| Abazis-Stamboulieh et al. (2007) | 1.084224  | (0.99868965-1.1770842) |
| Braicu et al. (2007)        | 1.1149794  | (1.0125859-1.2277269) |
| Ennas et al. (2008)         | 1.1190773  | (1.0172055-1.2311515) |
| Hoeft et al. (2008)         | 1.1333628  | (1.0247077-1.2535391) |
| Saenz-Lopez et al. (2008)   | 1.119923   | (1.0146664-1.2362514) |
| Yang et al. (2011)          | 1.1125885  | (1.0094941-1.2262114) |
| Senguven et al. (2011)      | 1.1242776  | (1.0226165-1.2360452) |
| Eshghyar et al. (2012)      | 1.1219686  | (1.0197638-1.2344168) |
| Zheng et al. (2013)         | 1.1366767  | (1.0362171-1.2468756) |
| Bai et al. (2013)           | 1.1196498  | (1.0172349-1.2323757) |
| Ai et al. (2014)            | 1.1168118  | (1.0147569-1.2291304) |
| Qu et al. (2014)            | 1.0822709  | (0.9969182-1.1749312) |
| Eaton et al. (2018)         | 1.1301898  | (1.0213937-1.2505746) |
| Combined                    | 1.118608   | (1.0191256-1.2278014) |
| Foster et al. (2000)        | 1.2595074  | (1.0276887-1.5436182) |
| Bushley et al. (2004)       | 1.2755945  | (1.0422684-1.5611538) |
| Grimm et al. (2004)         | 1.207817   | (1.0004098-1.4582243) |
| Hefler et al. (2005)        | 1.2581778  | (1.0249351-1.544499) |
| Snoussi et al. (2005)       | 1.279283   | (1.0352877-1.5807829) |
| Wang et al. (2005)          | 1.2133173  | (1.0086539-1.4595082) |
| Wang et al. (2005)          | 1.2474529  | (1.0234329-1.5205088) |
| Rothman et al. (2006)       | 1.3221509  | (1.0517963-1.6619977) |
| Study                                | Effect Size | 95% CI            |
|--------------------------------------|-------------|-------------------|
| Hou et al. (2007)                    | 1.3049545   | (1.0567685-1.611428) |
| Abazis-Stamboulieh et al. (2007)     | 1.2503132   | (1.0214759-1.530416) |
| Braicu et al. (2007)                 | 1.2533375   | (1.0237054-1.5344794) |
| Ennas et al. (2008)                  | 1.2605125   | (1.0308017-1.5414134) |
| Hoeft et al. (2008)                  | 1.3073854   | (1.0581926-1.6152605) |
| Saenz-Lopez et al. (2008)            | 1.2819759   | (1.0394988-1.5810139) |
| Yang et al. (2008)                   | 1.2533375   | (1.0237054-1.5344794) |
| Senguven et al. (2011)               | 1.2605125   | (1.0308017-1.5414134) |
| Yang et al. (2011)                   | 1.2557689   | (1.0396665-1.5542856) |
| Saenz-Lopez et al. (2011)            | 1.2503132   | (1.0214759-1.530416) |
| Yang et al. (2012)                   | 1.2719406   | (1.0407513-1.5544854) |
| Zheng et al. (2012)                  | 1.2750037   | (1.0495565-1.5488775) |
| Bai et al. (2013)                    | 1.2711959   | (1.0396665-1.5542856) |
|Ai et al. (2014)                      | 1.2557689   | (1.0308528-1.5542856) |
|Qu et al. (2014)                      | 1.1116145   | (0.9829067-1.2571759) |
| Eaton et al. (2018)                  | 1.306586    | (1.0616697-1.6155736) |
| Combined                             | 1.2587642   | (1.0353232-1.5304278) |

**C/T vs. T/T**

| Study                                | Effect Size | 95% CI            |
|--------------------------------------|-------------|-------------------|
| Foster et al. (2000)                 | 1.0678779   | (0.92527735-1.2324555) |
| Bushley et al. (2004)                | 1.1065238   | (0.96485114-1.2689986) |
| Grimm et al. (2004)                  | 1.0803351   | (0.93551069-1.2475796) |
| Heffler et al. (2005)                | 1.0890478   | (0.9408334-1.2605978) |
| Snoussi et al. (2005)                | 1.0740495   | (0.9279154-1.2431976) |
| Wang et al. (2005)                   | 1.0674819   | (0.9270930-1.2291296) |
| Wang et al. (2005)                   | 1.09299     | (0.95106083-1.2560998) |
| Rothman et al. (2006)                | 1.0855165   | (0.9187983-1.2824858) |
| Hou et al. (2007)                    | 1.0934082   | (0.94439042-1.2659398) |
| Abazis-Stamboulieh et al. (2007)     | 1.0376447   | (0.96850878-1.1117158) |
| Braicu et al. (2007)                 | 1.0710588   | (0.9270461-1.2374432) |
| Ennas et al. (2008)                  | 1.0788815   | (0.93542194-1.2443424) |
| Hoeft et al. (2008)                  | 1.0850056   | (0.93175077-1.2634679) |
| Saenz-Lopez et al. (2008)            | 1.066648    | (0.92144102-1.2347376) |
| Yang et al. (2011)                   | 1.0781385   | (0.93045139-1.2492673) |
| Senguven et al. (2011)               | 1.085232    | (0.9422909-1.2498565) |
| Eshghyari et al. (2012)              | 1.0706885   | (0.92975307-1.2329875) |
| Zheng et al. (2013)                  | 1.0984194   | (0.95187145-1.2675295) |

**Random**

| Study                                | Effect Size | 95% CI            |
|--------------------------------------|-------------|-------------------|
| Hou et al. (2007)                    | 1.0934082   | (0.94439042-1.2659398) |
| Abazis-Stamboulieh et al. (2007)     | 1.0376447   | (0.96850878-1.1117158) |
| Braicu et al. (2007)                 | 1.0710588   | (0.9270461-1.2374432) |
| Ennas et al. (2008)                  | 1.0788815   | (0.93542194-1.2443424) |
| Hoeft et al. (2008)                  | 1.0850056   | (0.93175077-1.2634679) |
| Saenz-Lopez et al. (2008)            | 1.066648    | (0.92144102-1.2347376) |
| Yang et al. (2011)                   | 1.0781385   | (0.93045139-1.2492673) |
| Senguven et al. (2011)               | 1.085232    | (0.9422909-1.2498565) |
| Eshghyari et al. (2012)              | 1.0706885   | (0.92975307-1.2329875) |
| Zheng et al. (2013)                  | 1.0984194   | (0.95187145-1.2675295) |
| Study                        | Odds Ratio (95% CI)          |
|-----------------------------|----------------------------|
| **C/C+C/T vs. T/T**         |                            |
| Bai et al. (2013)           | 1.0804635 (0.93844903-1.243969) |
| Ai et al. (2014)            | 1.0737259 (0.92910343-1.2408601) |
| Qu et al. (2014)            | 1.087394 (0.94156331-1.2558111) |
| Eaton et al. (2018)         | 1.075537 (0.92427945-1.2515476) |
| **Combined**                | 1.0772699 (0.937327-1.2381063)  |
| Foster et al. (2000)        | Random 1.1087502 (0.97873694-1.2560341) |
| Bushley et al. (2004)       | 1.1421711 (1.0150313-1.285236)  |
| Grimm et al. (2004)         | 1.1145502 (0.9833162-1.2632791) |
| Hefler et al. (2005)        | 1.1279305 (0.99280584-1.2814461) |
| Snoussi et al. (2005)       | 1.1159658 (0.98217493-1.2679816) |
| Wang et al. (2005)          | 1.102262 (0.97713524-1.2434117) |
| Wang et al. (2005)          | 1.1265415 (0.99629366-1.2738171) |
| Rothman et al. (2006)       | 1.1318791 (0.9784719-1.3075001) |
| Hou et al. (2007)           | 1.1356647 (0.9991554-1.2898432) |
| Abazis-Stamboulieh et al. (2007) | 1.0579948 (0.98488176-1.1365354) |
| Braicu et al. (2007)        | 1.1108475 (0.97981197-1.2594072) |
| Ennas et al. (2008)         | 1.1179013 (0.98710209-1.2660325) |
| Hoeft et al. (2008)         | 1.1305389 (0.99052262-1.2903475) |
| Saenz-Lopez et al. (2008)   | 1.1106211 (0.9773159-1.2621089) |
| Yang et al. (2011)          | 1.1140044 (0.9801383-1.2661536) |
| Senguven et al. (2011)      | 1.1241978 (0.99386185-1.2716262) |
| Eshghyar et al. (2012)      | 1.1134372 (0.98430306-1.2595128) |
| Zheng et al. (2013)         | 1.1405461 (1.0091571-1.2890415) |
| Bai et al. (2013)           | 1.1189629 (0.98937845-1.2655197) |
| Ai et al. (2014)            | 1.1142436 (0.98256022-1.2635754) |
| Qu et al. (2014)            | 1.1004988 (0.97278184-1.2449837) |
| Eaton et al. (2018)         | 1.1225507 (0.98330122-1.28152)  |
| **Combined**                | 1.1165795 (0.98906238-1.260537)  |
| **C/C vs. C/T+ T/T**        |                            |
| Foster et al. (2000)        | Random 1.1986217 (0.98798895-1.4541602) |
| Bushley et al. (2004)       | 1.2037904 (0.99371541-1.4582763) |
| Grimm et al. (2004)         | 1.1459252 (0.95960277-1.368425)  |
| Study                          | OR (95% CI)          |
|-------------------------------|----------------------|
| Hefler et al. (2005)          | 1.1863148 (0.97797585-1.4390365) |
| Snoussi et al. (2005)         | 1.2143855 (0.99343115-1.4844834) |
| Wang et al. (2005)            | 1.1631856 (0.97187299-1.3921579) |
| Wang et al. (2005)            | 1.1742742 (0.97655863-1.4120195) |
| Rothman et al. (2006)         | 1.2445769 (1.0015415-1.5465877)  |
| Hou et al. (2007)             | 1.2249411 (1.0011896-1.498698)   |
| Abazis-Stamboulieh et al. (2007)| 1.2185016 (1.0058209-1.4761535) |
| Braicu et al. (2007)          | 1.1920352 (0.98340696-1.4449238) |
| Ennas et al. (2008)           | 1.1945547 (0.98720819-1.4454507) |
| Hoeft et al. (2008)           | 1.2317958 (1.0079629-1.5053339)  |
| Saenz-Lopez et al. (2008)     | 1.2186185 (0.99978876-1.4853448) |
| Yang et al. (2011)            | 1.1625154 (0.96313792-1.4031657) |
| Senguven et al. (2011)        | 1.2034172 (0.99400353-1.4569494) |
| Eshghyar et al. (2012)        | 1.2116463 (1.0032412-1.4633439)  |
| Zheng et al. (2013)           | 1.209098 (1.0041413-1.4558887)   |
| Bai et al. (2013)             | 1.2054635 (0.98818278-1.4705199) |
| Ai et al. (2014)              | 1.1920215 (0.98835331-1.4376593) |
| Qu et al. (2014)              | 1.0730265 (0.95573616-1.2047111) |
| Eaton et al. (2018)           | 1.2377387 (1.015813-1.5081488)   |
| Combined                      | 1.1949698 (0.99245048-1.4388153) |
| rs3783553 Ins vs. Del         |                     |
| Gao et al. (2009)             | 1.3071965 (1.2001635-1.423775)  |
| He et al. (2010)              | 1.2850665 (1.1898788-1.3878689)  |
| Yang et al. (2012)            | 1.2926877 (1.1950018-1.3983588)  |
| Si et al. (2013)              | 1.2943312 (1.1970245-1.3995479)  |
| Pu et al. (2014)              | 1.2935164 (1.194968-1.4001921)   |
| Zeng et al. (2014)            | 1.3019085 (1.2022203-1.4098628)  |
| Du et al. (2014)              | 1.3255397 (1.2407275-1.4161493)  |
| Zhang et al. (2014)           | 1.2959334 (1.197322-1.4026664)   |
| Liao et al. (2014)            | 1.2835401 (1.1915337-1.382651)   |
| Gao et al. (2014)             | 1.3187627 (1.2234336-1.4215196)  |
| Huang et al. (2015)           | 1.3165137 (1.2205408-1.420033)   |
| Yan et al. (2015)             | 1.3104022 (1.2105973-1.4184353)  |
| Zhang et al. (2015)           | 1.2890154 (1.1923161-1.3935574)  |

Random
| Study               | Odds Ratio (95% CI)       |
|---------------------|--------------------------|
| Huang et al. (2016) | 1.2977227 (1.1988615-1.4047363) |
| Yu et al. (2016)    | 1.3042229 (1.2042254-1.4125242) |
| Zhang et al. (2016) | 1.2984432 (1.1974051-1.408007) |
| Hashemi et al. (2017)| 1.2925507 (1.1962954-1.3965509) |
| Ma et al. (2018)    | 1.2884655 (1.1916558-1.3931401) |
| **Combined**        | 1.2995767 (1.204766-1.4018487) |
| **Ins/Ins vs. Del/Del** |                           |
| Gao et al. (2009)   | 1.9219596 (1.5846775-2.3310289) |
| He et al. (2010)    | 1.8110595 (1.5312898-2.1419435) |
| Yang et al. (2012)  | 1.8697686 (1.5612833-2.2392058) |
| Si et al. (2013)    | 1.8636128 (1.5615518-2.2241035) |
| Pu et al. (2014)    | 1.866032 (1.558496-2.2342539)  |
| Zeng et al. (2014)  | 1.8732952 (1.5661392-2.2406914) |
| Du et al. (2014)    | 1.9484318 (1.7017984-2.2308087) |
| Zhang et al. (2014) | 1.8809477 (1.5698572-2.2536855) |
| Liao et al. (2014)  | 1.8444762 (1.5523897-2.1915197) |
| Gao et al. (2014)   | 1.9416754 (1.637585-2.3022339) |
| Huang et al. (2015) | 1.892611 (1.5823245-2.2637432) |
| Yan et al. (2015)   | 1.9162278 (1.5995845-2.2955518) |
| Zhang et al. (2015) | 1.8607125 (1.5545005-2.2272434) |
| Huang et al. (2016) | 1.8711363 (1.563525-2.2392678) |
| Yu et al. (2016)    | 1.8911828 (1.5776503-2.2670248) |
| Zhang et al. (2016) | 1.8751723 (1.5610883-2.2524486) |
| Hashemi et al. (2017)| 1.8552758 (1.5592065-2.2075641) |
| Ma et al. (2018)    | 1.829358 (1.5380909-2.175782)  |
| **Combined**        | 1.8785419 (1.5822952-2.2305256) |
| **Ins/Del vs. Del/Del** |                          |
| Gao et al. (2009)   | 1.5071969 (1.3368073-1.6993043) |
| He et al. (2010)    | 1.4273287 (1.2803806-1.5911419) |
| Yang et al. (2012)  | 1.4509373 (1.3016137-1.6173916) |
| Si et al. (2013)    | 1.4511584 (1.3033201-1.6157665) |
| Pu et al. (2014)    | 1.4504504 (1.3010137-1.6170517) |
| Zeng et al. (2014)  | 1.4448718 (1.2970369-1.6095568) |

**Random**

**Fixed**
Du et al. (2014) & 1.5526042 & (1.3845553-1.7410499) \\
Zhang et al. (2014) & 1.458493 & (1.308733-1.6253903) \\
Liao et al. (2014) & 1.4535096 & (1.3057805-1.6179518) \\
Gao et al. (2014) & 1.4798752 & (1.3272656-1.6500318) \\
Huang et al. (2015) & 1.4393282 & (1.2923839-1.6029801) \\
Yan et al. (2015) & 1.4604594 & (1.3097242-1.6285424) \\
Zhang et al. (2015) & 1.4541605 & (1.3038584-1.6217885) \\
Huang et al. (2016) & 1.4442477 & (1.2960093-1.6094418) \\
Yu et al. (2016) & 1.4493176 & (1.3003861-1.6153059) \\
Zhang et al. (2016) & 1.4439144 & (1.2932109-1.61218) \\
Hashemi et al. (2017) & 1.4581063 & (1.3073338-1.6262671) \\
Ma et al. (2018) & 1.4252414 & (1.2779493-1.5895098) \\
Combined & 1.457143 & (1.31018-1.6205909) \\

| Ins/Ins+Ins/Del vs. Del/Del | Gao et al. (2009) & 1.6985122 & (1.4551148-1.9826225) | Random |
|----------------------------|------------------|-----------------|---------|
|                            | He et al. (2010) & 1.6059269 & (1.4035263-1.8375154) |
|                            | Yang et al. (2012) & 1.6540114 & (1.4286557-1.9149144) |
|                            | Si et al. (2013) & 1.6507349 & (1.429889-1.9056903) |
|                            | Pu et al. (2014) & 1.652419 & (1.4274924-1.9127868) |
|                            | Zeng et al. (2014) & 1.6497352 & (1.4278957-1.90604) |
|                            | Du et al. (2014) & 1.6964006 & (1.5200669-1.8931899) |
|                            | Zhang et al. (2014) & 1.6645967 & (1.4371669-1.9280169) |
|                            | Liao et al. (2014) & 1.6459349 & (1.428091-1.897009) |
|                            | Gao et al. (2014) & 1.6977249 & (1.4773299-1.9509996) |
|                            | Huang et al. (2015) & 1.6505743 & (1.4292976-1.9061083) |
|                            | Yan et al. (2015) & 1.6810606 & (1.4507186-1.9479758) |
|                            | Zhang et al. (2015) & 1.6548196 & (1.4282278-1.9173609) |
|                            | Huang et al. (2016) & 1.648574 & (1.4259542-1.9059492) |
|                            | Yu et al. (2016) & 1.6615536 & (1.4346309-1.9243699) |
|                            | Zhang et al. (2016) & 1.6537962 & (1.4256699-1.9184257) |
|                            | Hashemi et al. (2017) & 1.6695222 & (1.4395225-1.93627) |
|                            | Ma et al. (2018) & 1.6118275 & (1.4046525-1.8495591) |
| Combined | 1.6588842 & (1.4430901-1.9069473) |
|                 | Authors           | Value       | Confidence Interval |
|-----------------|-------------------|-------------|---------------------|
| Ins/Ins vs.     | Gao et al. (2009) | 1.3106894   | (1.1735069-1.4639087) |
| Ins/Del+ Del/Del| He et al. (2010)  | 1.2913545   | (1.1672875-1.4286082) |
|                 | Yang et al. (2012)| 1.3001746   | (1.1738534-1.4400895) |
|                 | Si et al. (2013)  | 1.3012369   | (1.1757085-1.4401675) |
|                 | Pu et al. (2014)  | 1.2987543   | (1.1719007-1.4393394) |
|                 | Zeng et al. (2014)| 1.3138226   | (1.1850055-1.4566427) |
|                 | Du et al. (2014)  | 1.3382947   | (1.2168105-1.4719077) |
|                 | Zhang et al. (2014)| 1.3010944  | (1.1744685-1.4413726) |
|                 | Liao et al. (2014)| 1.2828965   | (1.1679553-1.4091494) |
|                 | Gao et al. (2014) | 1.3300513   | (1.2050521-1.4680166) |
|                 | Huang et al. (2015)| 1.33363     | (1.2183076-1.4598686) |
|                 | Yan et al. (2015) | 1.3221723   | (1.1936905-1.4644831) |
|                 | Zhang et al. (2015)| 1.291052   | (1.1680293-1.4270321) |
|                 | Huang et al. (2016)| 1.3089856  | (1.1810867-1.4507346) |
|                 | Yu et al. (2016)  | 1.316718    | (1.1878179-1.4596061) |
|                 | Zhang et al. (2016)| 1.3067567  | (1.1762164-1.4517848) |
|                 | Hashemi et al. (2017)| 1.2982341 | (1.1782374-1.4304519) |
|                 | Ma et al. (2018)  | 1.3002537   | (1.1725186-1.4419044) |
|                 | Combined          | 1.3078887   | (1.1857435-1.4426163) |
Supplementary table 3. *P* values of the Egger’s test for *IL-1A* polymorphism.

| Polymorphisms | Subgroup | Egger’s test *P* > |*t*| |
|---------------|----------|---------------------|----|---|
| rs17561       | Overall  | 0.855               |    |   |
|               | HB       | 0.669               |    |   |
|               | Overall  | 0.139               |    |   |
| rs1800587     | Asians   | 0.829               |    |   |
|               | Caucasians | 0.108           |    |   |
|               | PB       | 0.155               |    |   |
|               | HB       | 0.75                |    |   |
|               | Y        | 0.319               |    |   |
|               | N        | 0.599               |    |   |
| rs3783553     | Overall  | 0.079               |    |   |
|               | Asian    | 0.147               |    |   |
|               | PB       | 0.117               |    |   |
|               | HCC      | 0.747               |    |   |
Fig.S1 Meta-analysis of the association between IL-1A rs17561 polymorphism and cancer risk.