# DECLARATION OF CO-AUTHORSHIP

*The declaration is for PhD students and must be completed for each conjointly authored article. Please note that if a manuscript or published paper has eleven or less authors, all authors must sign a declaration of co-authorship.   
If it has twelve or more authors, only the PhD student, the corresponding author(s), the senior author and the principal supervisor need to sign the declaration of co-authorship.*

|  |  |
| --- | --- |
| 1. **Declaration by** | |
| Name of PhD student | Peter Christoffer Holm |
| E-mail | [peter.holm@cpr.ku.dk](mailto:peter.holm@cpr.ku.dk) |
| Name of principal supervisor | Søren Brunak |
| Title of the PhD thesis | Machine Learning-Based Precision Medicine in Ischemic Heart Disease |

|  |  |  |
| --- | --- | --- |
| 1. **The declaration applies to the following article** | | |
| Title of article | Development of a neural network-based competing risk model for long-term prognostication in ischemic heart disease from a large database of electronic health records and clinical registries | |
| **Article status** | | |
| Published  Date: | | Accepted for publication  Date: |
| Manuscript submitted  Date: | | Manuscript not submitted |
| If the article is published or accepted for publication, please state the name of journal, year, volume, page and DOI (if you have the information). | |  |

| 1. **The PhD student’s contribution to the article *(please use the scale A-F as benchmark)***   Benchmark scale of the PhD-student’s contribution to the article  **A**. Has essentially done all the work (> 90 %) **B**. Has done most of the work (60-90 %) **C**. Has contributed considerably (30-60 %) **D.** Has contributed (10-30 %) **E.** No or little contribution (<10 %) **F.** Not relevant | **A, B, C, D, E, F** |
| --- | --- |
| 1. Formulation/identification of the scientific problem | B |
| 2. Development of the key methods | A |
| 3. Planning of the experiments and methodology design and development | A |
| 4. Conducting the experimental work/clinical studies/data collection/obtaining access to data | B |
| 5. Conducting the analysis of data | A |
| 6. Interpretation of the results | B |
| 7. Writing of the first draft of the manuscript | A |
| 8. Finalisation of the manuscript and submission | A |
| Provide a short description of the PhD student´s specific contribution to the article.[[1]](#endnote-1)  The PhD student did most of the work in formulating the scientific problem and has essentially done all the work with regards to development of study design and methodology, computational experiments, analysis of data, data visualisation, software development, and writing of the draft manuscript as included in the thesis. | |

|  |  |
| --- | --- |
| 1. **Material from another thesis / dissertation[[2]](#endnote-2)** | |
| Does the article contain work which has also formed part of another thesis, e.g. master’s thesis, PhD thesis or doctoral dissertation (the PhD student’s or another person’s)? | Yes:  No: |
| If yes, please state name of the author and title of thesis / dissertation. |  |
| If the article is part of another author’s academic degree, please describe the PhD student´s and the author´s contributions to the article so that the individual contributions are clearly distinguishable from one another. |  |

| 1. **Signatures of the co-authors[[3]](#endnote-3)** | | | | |
| --- | --- | --- | --- | --- |
|  | **Date** | **Name** | **Title** | **Signature** |
| 1. |  |  |  |  |
| 2. |  |  |  |  |
| 3. |  |  |  |  |
| 4. |  |  |  |  |
| 5. |  |  |  |  |
| 6. |  |  |  |  |
| 7. |  |  |  |  |
| 8. |  |  |  |  |
| 9. |  |  |  |  |
| 10. |  |  |  |  |

|  |
| --- |
| 1. **Signature of the principal supervisor** |
| I solemnly declare that the information provided in this declaration is accurate to the best of my knowledge.  Date:       Principal supervisor: |

|  |
| --- |
| 1. **Signature of the PhD student** |
| I solemnly declare that the information provided in this declaration is accurate to the best of my knowledge.  Date:  PhD student: |

Please learn more about responsible conduct of research on the [Faculty of Health and Medical Sciences’ website](http://healthsciences.ku.dk/research/responsible-conduct-of-research/).

1. This can be supplemented with an additional letter if needed. [↑](#endnote-ref-1)
2. Please see Ministerial Order on the PhD Programme at the Universities and Certain Higher Artistic Educational Institutions (PhD Order) § 12 (4):

   *”Any articles included in the thesis may be written in cooperation with others, provided that each of the co-authors submits a written declaration stating the PhD student's or the author's contribution to the work.”* [↑](#endnote-ref-2)
3. If more signatures are needed please add an extra sheet. [↑](#endnote-ref-3)