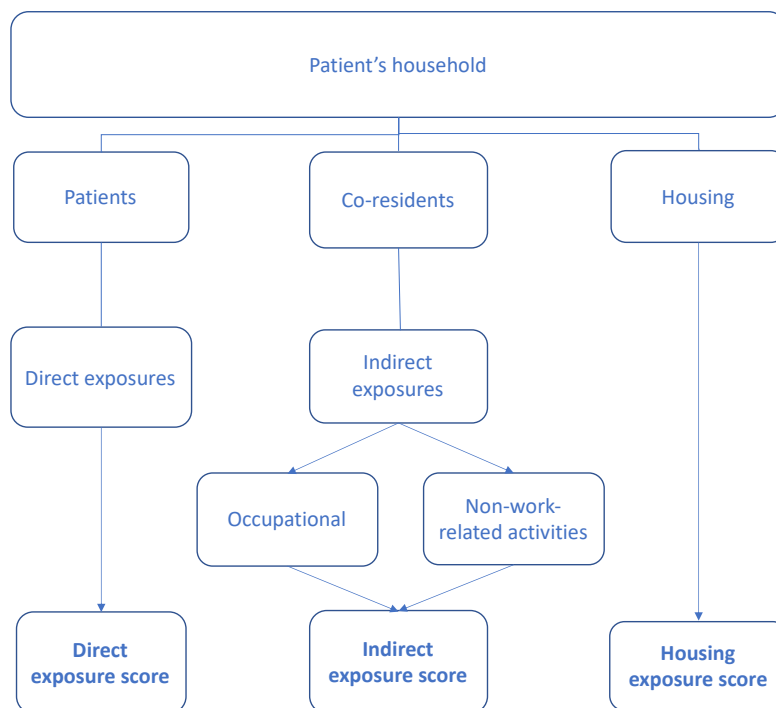


**Supplemental figures and tables for:  
Exposure to inorganic particles in pediatric sarcoidosis:  
the PEDIASARC study**

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**Figure S1. Exposure score of the patients and controls**

The environmental score was divided into 3 different scores: a direct score related to the patients' exposures, an indirect score related to the patient's co-resident exposures, and a housing score that includes current and previous housings of the patient. Each score is a sum of the individual exposures.

**Table S1. Explorations assessing the sarcoidosis diagnosis of the 36 included patients**

| <b>Exploration</b>                             | <b>Patients, n (%)</b> |
|--|------------------------|
| <b>Tuberculinic anergy</b>                     | 15 (42%)               |
| <b>Elevated calcemia</b>                       | 4 (11%)                |
| <b>Elevated liver enzymes</b>                  | 16 (44%)               |
| <b>Elevated angiotensine converting enzyme</b> | 23 (64%)               |
| <b>Chest radiography</b>                       |                        |
| Scadding 0                                     | 17 (47%)               |
| Scadding 1                                     | 2 (6%)                 |
| Scadding 2                                     | 7 (19%)                |
| Scadding 3                                     | 10 (28%)               |
| Scadding 4                                     | 0                      |
| <b>Thoracic CT-scan</b>                        |                        |
| Normal   | 1 (3%)                 |
| Hilar lymphadenopathies                        | 9 (26%)                |
| Mediastinal lymphadenopathies                  | 21 (60%)               |
| Parenchymal abnormalities                      | 30 (86%)               |
| Fibrosis                                       | 0                      |
| <b>Bronchoalveolar lavage (n=31)</b>           |                        |
| Mean lymphocyte rate                           | 40% ( $\pm$ 24)        |
| CD4/CD8 >2                                     | 16 (52%)               |
| <b>Pathology</b>                               |                        |
| Non-necrotizing granuloma                      | 33 (92%)               |

**Table S2. Direct exposures of patients and controls from birth to diagnosis**

| Direct exposures                       | Patients<br>n = 36<br>n (%) | Healthy controls<br>n = 36<br>n (%) | SCD controls<br>n = 21<br>n (%) |
|--|-----------------------------|-------------------------------------|---------------------------------|
| Skin application of powder products    | 10 28%                      | 11 31%                              | 7 35%                           |
| Talcum use                             | 9 25%                       | 8 22%                               | 4 19%                           |
| Talcum intentional inhalation          | 2 6%                        | 0                                   | 1 5%                            |
| Intravenous drug injection             | 0                           | 0                                   | 1 5%                            |
| Drug inhalation                        | 0                           | 0                                   | 1 5%                            |
| Household powders inhalation           | 5 14%                       | 0                                   | 1 5%                            |
| Do-It-Yourself                         | 7 19%                       | 12 33%                              | 3 14%                           |
| Woodcraft                              | 3 8%                        | 7 19%                               | 1 5%                            |
| Construction works                     | 2 6%                        | 9 25%                               | 1 5%                            |
| Glass/mineral wool use                 | 0                           | 3 8%                                | 1 5%                            |
| Intensive cleaning (abrasive products) | 11 31%                      | 6 17%                               | 1 5%                            |
| Stone cutting, sculpture, pottery      | 9 25%                       | 11 31%                              | 5 24%                           |
| Mud bath, clay mask                    | 5 14%                       | 9 25%                               | 3 14%                           |
| Gardening/agriculture                  | 13 36%                      | 21 58%                              | 11 52%                          |
| Clay cake ingestion (pica)             | 1 3%                        | 0                                   | 3 14%                           |
| Care of dusty clothes                  | 4 11%                       | 1 3%                                | 0                               |
| Cooking with wood, charcoal, fuel      | 11 31%                      | 18 50%                              | 7 33%                           |
| Tattoos                                | 0                           | 1 3%                                | 10 5%                           |
| Game in sand pit                       | 32 89%                      | 34 94%                              | 16 76%                          |

**Table S3. Indirect exposures due to occupational and non-work-related activities of the co-residents**

| Indirect exposures                                | Patients<br>n = 36<br>n (%) | Healthy<br>controls*<br>n = 36<br>n (%) | SCD controls**<br>n = 21<br>n (%) |
|---|-----------------------------|---|-----------------------------------|
| <i>Occupational activities</i>                    |                             |   |                                   |
| Agriculture                                       | 1 3%                        | 1 3%                                    | 4 19%                             |
| Farming   | 0                           | 1 3%                                    | 1 5%                              |
| Work in a mine or quarry                          | 0                           | 0                                       | 1 5%                              |
| Construction                                      | 9 25%                       | 1 3%                                    | 2 10%                             |
| Cleaning (powder or abrasive products)            | 17 47%                      | 1 3%                                    | 9 43%                             |
| Plumbing  | 0                           | 5 14%                                   | 0                                 |
| Occupational exposure to toner                    | 4 11%                       | 1 3%                                    | 0                                 |
| Use of sand, cement, clay, plaster, slate, enamel | 8 22%                       | 3 8%                                    | 1 5%                              |
| Use of abrasive materials                         | 12 33%                      | 4 11%                                   | 0                                 |
| Metallurgy, steel industry                        | 5 14%                       | 3 8%                                    | 0                                 |
| Foundry   | 1 3%                        | 0                                       | 0                                 |
| Welding   | 6 17%                       | 3 8%                                    | 3 14%                             |
| Polishing/sanding metal, plaster, minerals, wood  | 10 28%                      | 5 14%                                   | 3 14%                             |
| Talcum use  | 12 33%                      | 1 3%                                    | 2 10%                             |
| Dental technician activities                      | 0                           | 0                                       | 0                                 |
| Asphalt exposure                                  | 2 6%                        | 1 3%                                    | 0                                 |
| Marble, stone cutting                             | 0                           | 2 6%                                    | 0                                 |
| Asbestos removal                                  | 2 6%                        | 3 8%                                    | 0                                 |
| Work in a building containing asbestos            | 4 11%                       | 0                                       | 1 5%                              |
| Working with mineral wools (glass, rock)          | 1 3%                        | 5 14%                                   | 1 5%                              |
| Fume-emitting activities in metalworking industry | 7 19%                       | 0                                       | 2 10%                             |
| Crystal cutting                                   | 0                           | 2 6%                                    | 0                                 |
| Using scouring powder                             | 11 31%                      | 5 14%                                   | 1 5%                              |
| Dusty clothes (mineral dust) laundry at work      | 6 17%                       | 2 6%                                    | 0                                 |
| Occupations resulting in dust on clothes          | 5 14%                       | 1 3%                                    | 0                                 |
| <i>Non-work related activities</i>                |                             |   |                                   |
| Frequent do-it-yourself (polishing, sanding)      | 8 22%                       | 9 25%                                   | 1                                 |
| Occasional do-it-yourself                         | 8 22%                       | 6 17%                                   | 0                                 |
| Woodcraft   | 3 8%                        | 7 19%                                   | 2 10%                             |
| Construction work                                 | 2 6%                        | 1 3%                                    | 0                                 |
| Intensive cleaning (abrasive products)            | 5 14%                       | 2 6%                                    | 0                                 |
| Sandblasting, stripping with sand                 | 0                           | 1 3%                                    | 0                                 |
| Stone cutting, sculpture, modeling                | 0                           | 3 8%                                    | 0                                 |
| Use of talcum                                     | 7 19%                       | 15 42%                                  | 5 24%                             |
| Dusty gardening (mower, pesticide)                | 8 22%                       | 5 14%                                   | 1 5%                              |
| Dusty clothes (mineral dust) laundry at home      | 9 25%                       | 4 11%                                   | 1 5%                              |
| Activities with mineral dust (crystalline silica) | 1 3%                        | 1 3%                                    | 0                                 |
| Co-resident bringing dust at home                 | 3 8%                        | 1 3%                                    | 0                                 |
| Exposure to leather, wood, soot, diesel dust      | 0                           | 1 3%                                    | 0                                 |
| Activities with metal dust                        | 0                           | 4 11%                                   | 0                                 |

n represents the absolute number of included patients or controls with at least one co-resident's exposure

**Table S4. Interquartile range of median exposure score of the current and previous housings**

| Housing exposure score         | Patients         | Healthy controls | p       | SCD controls     | p    |
|--------------------------------|------------------|------------------|---------|------------------|------|
| Current housing, median [IQR]  | 0.07 [0.05;0.09] | 0.05 [0.03;0.07] | < 0.001 | 0.11 [0.07;0.11] | 0.3  |
| Previous housing, median [IQR] | 0.16 [0.11;0.16] | 0.05 [0.02;0.07] | < 0.001 | 0.12 [0.06;0.12] | 0.13 |

As the number of answered question could be different, the score was divided by the number of answered questions and the results were thus expressed as a score and interquartile range.

**Table S5. Exposures in current and previous housings**

| Type of exposures                          | Patients<br>n = 36<br>n (%) | Healthy<br>controls*<br>n = 36<br>n (%) | SCD<br>controls**<br>n = 21<br>n (%) |
|--|-----------------------------|---|--------------------------------------|
| Current housing                            |                             |   |                                      |
| Smokers among co-residents                 | 14 39%                      | 9 25%                                   | 3 14%                                |
| Mold                                       | 11 31%                      | 14 39%                                  | 7 33%                                |
| Ventilation > 15 min per day               | 29 81%                      | 27 75%                                  | 15 71%                               |
| Close to an important traffic axis         | 9 25%                       | 9 25%                                   | 3 14%                                |
| Heating: wood, gas, butane, coal, fuel oil | 21 58%                      | 16 44%                                  | 10 48%                               |
| Previous housings                          |                             |   |                                      |
| Smokers among co-residents                 | 12 33%                      | 10 28%                                  | 3 14%                                |
| Mold                                       | 10 28%                      | 2 6%                                    | 6 29%                                |
| Ventilation > 15 min per day               | 22 60%                      | 26 72%                                  | 14 67%                               |
| Close to an important traffic axis         | 2 6%                        | 4 11%                                   | 4 19%                                |
| Heating: wood, gas, butane, coal, fuel oil | 25 69%                      | 13 36%                                  | 4 19%                                |

