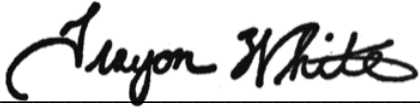
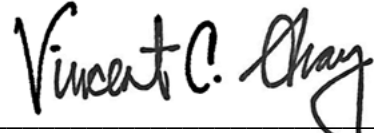


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5 Councilmember Trayon White, Sr



6 Councilmember Vincent C. Gray

7 A BILL

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13 IN THE COUNCIL OF THE DISTRICT OF COLUMBIA  
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19 To amend the Department of Health Functions Clarification Act of 2001 to establish a thymus  
20 imaging study for the purpose of studying differing life expectancies between Southeast  
21 and Northwest DC, and to create the first comprehensive data inventory for thymus gland  
22 size and weight and epigenetic biological age at different ages, sexes, and racial and  
23 socio-economic backgrounds.

24  
25 BE IT ENACTED BY THE COUNCIL OF THE DISTRICT OF COLUMBIA, That this  
26 act may be cited as the “Pioneer Initiative for Thymus and Health Equity Amendment Act of  
27 2024”.

28 Sec. 2. The Department of Health Functions Clarification Act of 2001, effective October  
29 3, 2001 (D.C. Law 14-28; D.C. Official Code § 7-731 *et seq.*), is amended by adding new  
30 sections 4961 through 4964 to read as follows:

31 “Sec. 4961. Thymus imaging study and establishment of consortium.

32 “(a)(1) The Department of Health shall establish a consortium.

33 “(2) The consortium shall consist of hospitals, schools, health organizations, and  
34 their associated hospitals or health clinics, or hospitals and health clinics with which they have  
35 partnerships, within Washington, DC.

36                   “(3) Participating schools and hospitals must formally join the consortium to be  
37 eligible to apply for funding under this title, through the Department of Health. To be eligible,  
38 participating schools and hospitals must meet the following criteria:

39                   “(A) They must be legally recognized entities with established operations  
40 within Washington, DC;

41                   “(B) They must demonstrate the capacity to collect, manage, and report  
42 data from District residents, specifically for the purposes of the thymus imaging study as  
43 described in section 4962;

44                   “(C) They must have a track record of conducting health-related research  
45 or clinical studies involving human participants;

46                   “(D) They must possess the necessary infrastructure, personnel, and  
47 expertise to effectively participate in the consortium’s activities, ensuring the integrity and  
48 accuracy of the data collected; and

49                   “(E) They must comply with all relevant local and federal laws and  
50 regulations regarding the protection of human subjects and data privacy.

51                   “(4) The consortium shall conduct a cross-sectional thymus imaging study,  
52 described in section 4962, to assess the relationship between biological age and the thymus  
53 gland’s weight, size, T-Cell output, and function.

54                   “(5) The consortium shall also ensure that members collect data from at least 100  
55 participants per subgroup. A subgroup is a group of participants who share the same sex, race,  
56 age group, and standardized life-expectancy area.

57                   “(6) Members of the consortium shall work together to agree on the best methods  
58 for effectively and efficiently collecting the data for the study described in section 4962,  
59 attracting and retaining study participants, and communicating budgetary and legislative needs.

60                   “(b) The Department of Health shall be responsible for issuing grants to members of the  
61 consortium to collect and report the data described in section 4962.

62                   “(c) The structure of the consortium shall be as follows:

63                   “(1) Governance:

64                   “(A) the Consortium shall be governed by a Board of Directors, composed  
65 of representatives from each member institution, including hospitals, schools, health  
66 organizations, and associated health clinics within Washington DC.

67                   “(B) The Board shall include one representative appointed by the Mayor,  
68 one representative appointed by the Council, and one representative from the Department of  
69 Health.

70                   “(C) The board shall elect a Chairperson from among its members to serve  
71 a term of two years.

72                   “(2) Executive Committee:

73                   “(A) An Executive Committee, elected by the Board of Directors, shall be  
74 responsible for the day-to-day management and operation of the consortium.

75                   “(B) The Executive Committee shall include a President, Vice President,  
76 Secretary, and Treasurer, who shall each serve two-year terms.

77                   “(3) Advisory Panels:

78                   “(A) The consortium shall establish advisory panels as needed, consisting  
79 of experts in relevant fields, to provide guidance on research methods, data collection, and other  
80 technical aspects of the consortium’s activities.

81                   “(B) Members of the Advisory Panels shall be appointed by the Executive  
82 Committee and shall serve in an advisory capacity without voting rights on the Board of  
83 Directors.

84                   “(4) Membership:

85                   “(A) Membership in the consortium shall be open to any legally  
86 recognized school or hospital within Washington, DC. that meets eligibility criteria outlined in  
87 subsection (a)(3).

88                   “(B) Member institutions must enter into a formal agreement with the  
89 Department of Health, committing to the consortium’s goals and adhering to its bylaws.

90                   “(5) Funding:

91                   “(A) The Consortium shall be funded through grants issued by the  
92 Department of Health, as well as other federal, state, and private funding sources.

93                   “(B) The Board of Directors shall oversee the allocation and management  
94 of funds, ensuring that resources are used efficiently and to achieve the consortium’s objectives.

95                   “(6) Transparency and Reporting:

96                   “(A) The consortium shall maintain transparency in its operation,  
97 including regular public reporting of its activities, fundings, and financial statements.

98                   “(B) An annual report detailing the consortium’s progress, financial status,  
99 and future plans shall be submitted to the Department of Health, the Council, and the Mayor.

100 “(7) Compliance and Accountability:

101 “(A) The consortium and its members shall comply with all applicable  
102 local and federal law and regulations, including those pertaining to research ethics, data  
103 protection, and antitrust laws.

104 “(B) The Board of Directors shall establish mechanisms for accountability,  
105 including regular audits and reviews of the consortium’s activities and finances.

106 “Sec. 4962. Thymus imaging study criteria and methodology.

107 “(a) The cross-sectional thymus imaging study shall include:

108 “(1) Cisgender men and women;

109 “(2) Individuals in the following age categories:  $\leq 29$ , 30-39, 40-49, 50-59, 60-69,  
110 or  $\geq 70$  years;

111 “(3) The following racial and ethnic categories:

112 “(A) Non-Hispanic Black;

113 “(B) White; and

114 “(C) Hispanic/Latino; and

115 “(4) Natural born residents from one of 5 standardized life-expectancy areas,  
116 ranging from the highest to the lowest measured life-expectancy zip codes in the District.

117 “(b) Notwithstanding subsection (a) of this section, the thymus imaging study shall  
118 exclude individuals who:

119 “(1) Are currently on HRT or hormone blockers;

120 “(2) Have an HIV infection;

121 “(4) Chronically use or are currently using glucocorticoid therapy;

- 122 “(5) Are pregnant;
- 123 “(6) Are currently experiencing a substance use disorder;
- 124 “(7) Are not natural born citizens of the United States;
- 125 “(8) Are unwilling or unable to give voluntary informed consent, unless they are
- 126 18 or younger and the consent of their parent or guardian is able to be obtained;
- 127 “(9) Have uncorrected hypothyroidism;
- 128 “(10) Have Type 1 Diabetes;
- 129 “(11) Have used Growth Hormone in the last 5 years;
- 130 “(12) Have a known growth hormone deficiency based on stimulation testing;
- 131 “(12) Are currently undergoing chemotherapy or radiation treatment; and
- 132 “(13) Have been diagnosed with DiGeorge Syndrome, CHARGE syndrome,
- 133 chromosome 22q11.2 microdeletion syndrome, Down Syndrome, Hutchinson-Gilford Progeria
- 134 Syndrome, or any other chromosomal deletion or duplication related, or diagnosed genetic
- 135 disorder which is known to affect the thymus or the process of aging.

136 “(c) The thymus imaging study shall collect the following data for each participant:

- 137 “(1) Detailed Thoracic MRI assessments of the Thymus to determine weight, size,
- 138 and fat percentage;
- 139 “(2) Complete blood count;
- 140 “(3) Complete endocrine panel;
- 141 “(4) Comprehensive metabolic panel;
- 142 “(5) Body mass index measurements;
- 143 “(6) Waist circumference;

144 “(10) Telomere length measurement.  
145 “(11) T-Cell receptor excision circle (“TREC”) analysis;  
146 “(12) Lymphocyte phenotypes panel;  
147 “(13) Epigenetic biological age; and  
148 “(14) Information contained in a questionnaire, which may be answered by the  
149 participant, their guardian, or by a medical professional on behalf of the participant, that shall  
150 include at least the following questions:

151 “(A) Personal Information:

152 “(i) Age

153 “(ii) Sex

154 “(iii) Race/Ethnicity

155 “(iv) Height

156 “(v) Weight

157 “(vi) Socioeconomic Background

158 “(vii) Educational Level

159 “(viii) Employment Status

160 “(viii) Household Income

161 “(ix) Zip Code

162 “(x) Zip Code of the hospital or place where you were born

163 “(B) Health History:

164 “(i) Have you ever been diagnosed with any chronic diseases? If

165 so, please list them.

166 “(ii) Have you ever had a thymectomy? If so:  
167 “(I) At what age?  
168 “(II) What was the reason for the thymectomy?  
169 “(iii) Do you have a history of autoimmune diseases? If so, please  
170 list them.

171 “(iv) Have you been diagnosed with any form of cancer? If so:  
172 “(I) At what age(s) were you diagnosed?  
173 “(II) What was your diagnosis?  
174 “(III) What is your current remission and Minimal Residual  
175 Disease status?

176 “(v) Do you have a history of infection, particularly viral infections  
177 (e.g., HIV, hepatitis, etc.)? If so:  
178 “(I) At what age(s)?  
179 “(II) What was your diagnosis?

180 “(vi) Have you undergone chemotherapy or radiation therapy? If  
181 so:  
182 “(I) At what age(s)?  
183 “(II) If possible, please list them and the reason for their  
184 use.

185 “(vii) Do you have a history of hormone replacement therapy or  
186 glucocorticoid therapy? If so:  
187 “(I) At what age(s)?



188 “(II) If possible, please list them and the reason(s) for their  
189 use.

190 “(viii) Do you have any known genetic disorders? If so, please list  
191 them.

192 “(viii) Are you currently on birth control? If so:

193 “(I) At what age(s)?

194 “(II) If possible, please list them and the reason(s) for their  
195 use.

196 “(C) Current Health Status:

197 “(i) Are you currently taking any medications? If so, please list  
198 them.

199 “(ii) Do you currently have any health conditions? If so, please list  
200 them.

201 “(iii) Do you have any known allergies? If so, please list them.

202 “(iv) Have you experienced any recent infections or illnesses? If  
203 so, please list them.

204 “(D) Lifestyle and Habits:

205 “(i) Do you smoke? If so, how many cigarettes per day and for  
206 how many years?

207 “(ii) Do you consume alcohol? If so, how often and how much?

208 “(iii) Do you use recreational drugs? If so, which ones and how  
209 often?

210 “(iv) Describe your typical diet (e.g., vegetarian, vegan,  
211 omnivorous, high fat, high sugar).

212 “(v) How many servings of fruits and vegetables do you consume  
213 per day?

214 “(vii) How often do you consume processed foods?

215 “(viii) On average, how many meals do you eat per day?

216 “(viii) Do you have any dietary restrictions or special diets (e.g.,  
217 gluten-free, ketogenic)?

218 “(E) Physical Activity:

219 “(i) How often do you exercise?

220 “(ii) What types of exercise do you engage in (e.g., aerobic,  
221 strength training, flexibility exercises)?

222 “(iii) On average, how many hours per week do you spend  
223 exercising?

224 “(iv) Do you have any physical limitations or disabilities that affect  
225 your ability to exercise?

226 “(F) Mental Health:

227 “(i) Have you ever been diagnosed with any mental health  
228 conditions (e.g., depression, anxiety, bipolar disorder)? If so, please list them.

229 “(ii) Are you currently receiving treatment for any mental health  
230 conditions? If so, please list them.

231 “(iii) Do you experience high levels of stress?

232 “(iv) How do you typically manage stress (e.g., exercise,  
233 meditation, therapy)?

234 “(G) Sleep Patterns:

235 “(i) On average, how many hours of sleep do you get a night?

236 “(ii) Do you have any sleep disorders (e.g., insomnia, sleep  
237 apnea)? If so, please list them.

238 “(iii) Do you feel rested when you wake up?

239 “(H) Obesity-Related Factors

240 “(i) Have you ever been diagnosed with obesity or overweight?

241 “(ii) Have you ever received treatment for obesity (e.g., bariatric  
242 surgery, weight loss programs)?

243 “(iii) Do you have a history of metabolic syndrome?

244 “(I) Family Medical History:

245 “(i) Is there a family history of chronic diseases (e.g., heart disease,  
246 diabetes, cancer)? If so, please provide a list of each member, their familial  
247 relation to yourself, and their respective diagnosis.

248 “(ii) Is there a family history of autoimmune diseases? If so, please  
249 provide a list of each member, their familial relation to yourself, and their  
250 respective diagnosis.

251 “(iii) Is there a family history of obesity? If so, please provide a list  
252 of each member, their familial relation to yourself, and whether you have ever co-  
253 habited with them.

254 “(J) Health Behaviors:

255 “(i) How often do you visit a healthcare provider for check-ups or  
256 preventive care?

257 “(ii) Do you participate in any regular health screenings (e.g.,  
258 mammograms, colonoscopies)?

259 “(iii) Have you been vaccinated according to the recommended  
260 schedule? If not, why?

261 “(K) Additional Information:

262 “(i) Is there anything else you believe is relevant to your health or  
263 lifestyle that we should know?

264 “(d) The consortium may make any changes deemed necessary to the Questionnaire, if it  
265 is in the interest of the study.

266 “(e) The consortium may expand the scope of testing, if it is in the interest of the study.

267 “(f) The consortium may alter subsection (a)(4) to lower the number of life expectancy  
268 areas, if it is in the interest of the study.

269 “Sec. 4963. Data anonymization and public access.

270 “(a) All data collected from the study shall be anonymized to protect the privacy of  
271 participants.

272 “(b) The anonymized data shall be made publicly accessible in a manner that allows  
273 researchers, policymakers, and laymen to analyze the findings. Additionally, the public should  
274 also be able to access the anonymized raw results of the study to perform their own statistical  
275 analyses.

276           “(c) The Department of Health and the consortium shall establish protocols to ensure the  
277 secure storage and dissemination of the anonymized data.

278           “Sec. 4964. Reporting requirements.

279           “(a) The consortium shall submit annual reports to the Council and the Department of  
280 Health detailing the progress and preliminary findings of the study, and financial expenditures.

281           “(b) A final comprehensive report shall be submitted at the conclusion of the cross-  
282 sectional study, summarizing all findings and providing recommendations for future research and  
283 policy initiatives.

284           Sec. 3. Fiscal Impact Statement.

285           The Council adopts the fiscal impact statement as the fiscal impact statement in the  
286 committee report as required by section 4a of the General Legislative Procedures Act of 1975,  
287 approved October 16, 2006 (120 Stat. 2038; D.C. Official Code § 1-301.47a).

288           Sec. 4. Effective Date.

289           This act shall take effect upon its approval by the Mayor (or in the event of veto by the  
290 Mayor, action by the Council to override the veto) and a 30-day period of congressional review  
291 as provided in section 602(c)(1) of the District of Columbia Home Rule Act, approved December  
292 24, 1973 (87 Stat. 813; D.C. Official Code § 1-206.02(c)(1)).