



General Assembly

Substitute Bill No. 349

February Session, 2006

* SB00349CE_APP031606 *

**AN ACT CONCERNING THE ADVANCEMENT OF
NANOTECHNOLOGY DEVELOPMENT IN CONNECTICUT.**

Be it enacted by the Senate and House of Representatives in General Assembly convened:

1 Section 1. Section 4-124hh of the 2006 supplement to the general
2 statutes is repealed and the following is substituted in lieu thereof
3 (*Effective July 1, 2006*):

4 (a) The Office of Workforce Competitiveness shall, within available
5 appropriations, establish a grant program to provide a flexible source
6 of funding the creation and generation of talent in institutions of
7 higher education and, with appropriate connections to vocational-
8 technical schools and other secondary schools, for student outreach
9 and development. Grants pursuant to this subsection shall be awarded
10 to institutions of higher education and may be used to:

11 (1) Upgrade instructional laboratories to meet specific industry-
12 standard laboratory and instrumentation skill requirements;

13 (2) Develop new curriculum and certificate and degree programs at
14 the level of associate, bachelor, master's and doctorate, tied to industry
15 identified needs;

16 (3) Develop seamlessly articulated career development programs in
17 workforce shortage areas forecasted pursuant to subdivision (9) of

18 subsection (b) of section 4-124w in collaboration with vocational-
19 technical schools and other secondary schools and institutions of
20 higher education; [and]

21 (4) Support undergraduate and graduate student research projects
22 and experimental learning activities; and

23 (5) Establish a nanotechnology post-secondary education program
24 and clearinghouse for curriculum development, scholarships and
25 student outreach.

26 (b) The Office of Workforce Competitiveness shall, within available
27 appropriations, establish a grant program to provide funding for the
28 advancement of research capabilities and research opportunities.
29 Grants pursuant to this subsection shall be awarded to institutions of
30 higher education and technology focused organizations and may be
31 used to:

32 (1) Recruit eminent faculty in basic and applied research;

33 (2) Leverage federal funding for research centers; [and]

34 (3) Provide pilot funding for faculty to develop initial research data
35 for the development of larger grant funding proposals and to nonstate
36 granting entities, such as federal agencies; and

37 (4) Establish a Connecticut Nanotechnology Collaboration Initiative,
38 which shall include technology-focused organizations, to foster
39 industry-university relationships by providing:

40 (A) Discovery grants, not to exceed fifty thousand dollars, to
41 support post-doctorate or graduate students working with industry on
42 nanotechnology projects under the supervision of faculty members.
43 Each discovery grant shall be matched with a direct or in-kind
44 industry grant in the same amount;

45 (B) Collaborative grants, not to exceed one hundred fifty thousand

46 dollars, to support university research teams working with industry on
47 collaborative research projects focused on specific application
48 development. Each collaborative grant shall be matched with an
49 industry grant in the same amount;

50 (C) Prototype grants, not to exceed two hundred fifty thousand
51 dollars, to enable universities and companies to demonstrate whether
52 a prototype is manufacturable and functional and the cost effectiveness
53 of nanotechnology-related applications. Each prototype grant shall be
54 matched with an industry grant in an amount equal to two dollars for
55 every one dollar of such prototype grant.

56 (c) The Office of Workforce Competitiveness shall, within available
57 appropriations, establish a grant program to provide funding for the
58 promotion of collaborative research applications between industry and
59 institutions of higher education. Grants pursuant to this subsection
60 shall be awarded to institutions of higher education, technology-
61 focused organizations and business entities may be used:

62 (1) To improve technology infrastructure by advancing the
63 development of shared use between institutions of higher education
64 and business entities of laboratories and equipment, including, but not
65 limited to, technology purchase, lease and installation, operating and
66 necessary support personnel and maintenance; [and]

67 (2) As matching grants for joint projects between an industry, a
68 technology-focused organization or a university. The office shall
69 structure the matching grants to provide two rounds of funding
70 annually and shall do outreach to companies. The matching grant part
71 of the program shall include, but not be limited to, (A) one-to-one
72 matching grants not to exceed one hundred thousand dollars, with in-
73 kind match allowed for small and mid-sized companies, (B)
74 involvement of a competitive process with outside reviewers using as
75 key criteria (i) the demonstration of commercial relevance, and (ii) a
76 clear path to the marketplace for any innovations developed in the
77 course of the research, and (C) an aggressive marketing campaign

78 through business organizations to raise industry awareness of
79 resources from universities or technology-focused organizations; and

80 (3) To develop a Connecticut Center for Nanoscale Sciences and
81 Development to provide a shared-use laboratory in one or more sites
82 in the state, including technology-focused organizations, to advance
83 university research, industry application development and education
84 involving the synthesis, characterization and fabrication of nanoscale
85 materials, intermediates and devices and related program activities.
86 The Office of Workforce Competitiveness shall conduct a feasibility
87 study and business planning model leading to the establishment of
88 such center, including strategies for securing investments from the
89 federal government and private entities. On or before January 1, 2007,
90 said office shall submit the results of such study, in accordance with
91 the provisions of section 11-4a, to the joint standing committees of the
92 General Assembly having cognizance of matters relating to commerce
93 and higher education and employment advancement.

94 (d) The Office of Workforce Competitiveness shall, within available
95 appropriations, establish a grant program to provide funding for the
96 promotion of commercialization of research done by institutions of
97 higher education. Grants pursuant to this subsection shall be awarded
98 to institutions of higher education and business entities and may be
99 used; [to:]

100 (1) [Provide] To provide funding to verify the technical and
101 commercial feasibility of early stage discoveries by institutions of
102 higher education that are disclosed or patented to accelerate and
103 increase the likelihood that the technology will be successfully
104 commercialized; [and]

105 (2) [Provide] To provide matching support for smaller institutions
106 of higher education to allow for contracts with independent
107 technology transfer organizations to provide specific service to support
108 specific needs; and

109 (3) Through the Connecticut Small Business Innovation Research
110 Office, an initiative of the Connecticut Center for Advanced
111 Technology, supported by the Office of Workforce Competitiveness, to
112 provide specialized technical assistance to advance nanotechnology
113 awards to Connecticut companies and the small business innovation
114 research program, including nanotechnology-related workshops and
115 seminars, grant preparation assistance, marketing assistance, services
116 related to matching grants and other technical assistance to assist
117 companies with nanotechnology-related applications for the small
118 business innovation research program.

119 Sec. 2. (*Effective July 1, 2006*) The following amounts are
120 appropriated, from the General Fund, for the fiscal year ending June
121 30, 2007:

122 (1) One million dollars to the Department of Higher Education for
123 the purposes set forth in subdivision (5) of subsection (a) of section 4-
124 124hh of the 2006 supplement to the general statutes, as amended by
125 this act;

126 (2) Five million dollars to the Office of Workforce Competitiveness
127 for the purposes set forth in subdivision (4) of subsection (b) of section
128 4-124hh of the 2006 supplement to the general statutes, as amended by
129 this act;

130 (3) Two hundred fifty thousand dollars to the Office of Workforce
131 Competitiveness for the feasibility study required under subdivision
132 (3) of subsection (c) of section 4-124hh of the 2006 supplement to the
133 general statutes, as amended by this act; and

134 (4) Two hundred fifty thousand dollars to the Office of Workforce
135 Competitiveness for the purposes set forth in subdivision (3) of
136 subsection (d) of section 4-124hh of the 2006 supplement to the general
137 statutes, as amended by this act.

This act shall take effect as follows and shall amend the following sections:

Section 1	<i>July 1, 2006</i>	4-124hh
Sec. 2	<i>July 1, 2006</i>	New section

CE

Joint Favorable Subst. C/R

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