

APPENDIX C

CHARGE 2

Enabling Practices for the Life Science Industry: State Matrix

Enabling Practices for the Life Science Industry

State Matrix

	Financial Incentives	Capitalization	Commercialization	Workforce	State Strategy
AR	<p>20% credit on qualified R&D expenses; 15-yr carryforward provision for NOL; 30% credit on cost of cooperative research w/ state universities (1997)</p> <p>5% income tax credit on costs of construction, biotech facilities; sales tax exemption for most purchases of biotech-related equipment</p> <p>credits to offset first \$50k of tax liability; unused credits may be carried forward 9 years</p>	<p>Seed capital investment program through AR Science & Technology Authority</p> <p>additional financing assistance available through AR Development Finance Authority, AR Capital Corp., AR Industrial Development Commission</p> <p>50% capital gains tax cut for qualified stocks held at least 5 yrs, - to no tax liability for stocks held 10 yrs</p>	<p>Technology transfer assistance grants through AR Science & Technology Authority</p> <p>business incubators at UA and UAMS; two research parks & technology incubator under development</p> <p>UAMS Biomedical Biotechnology Center - assists scientists in obtaining patents & tech transfer</p>	<p>30% tax credit on cost of training for biotech jobs</p>	<p>AR Science & Technology Authority (state agency) - variety of funded programs to support technology development: basic and applied research grant programs, tech transfer grants, seed capital investment program</p>
CA	<p>11% credit on R&D, unlimited carryforward (24% for university research)</p> <p>50% NOL deduction, 100% for new businesses with less than \$1mil in receipts, up</p>	<p>investment pools available in state retirement system (CALPERS) and teachers retirement (CALSTERS) to invest in biotechnology</p>	<p>Office of Technology Alliances (OTA) at UC Irvine - fosters research partnerships and transfers of technology between UCI and industry</p>	<p>reimbursement and assistance for technical training to biotech firms; state recently gave \$10m job training package to a biotech company</p>	<p>State Interagency Task Force on Biotechnology - chaired by Secretary of Trade & Commerce; coordinates activities and streamlines regulatory process for biotechnology development</p>

Abbreviations:

ED: economic development

NOL: Net Operating Loss

R&D: research & development

VC: venture capital

Financial Incentives	Capitalization	Commercialization	Workforce	State Strategy
to 8yr carryforward		UCSD CONNECT - links high tech and biotech companies with financial, managerial and technical resources		
6% credit on equipment purchases (\$1m cap), 5 yr carryforward; 5% exemption on sales & use tax for new biotech construction for first 3 yrs				
Legislation filed to allow sale of unused R&D and NOL credits to the state for 50% of value				
CT sales tax exemption for R&D equipment for biotech, 20-yr NOL carryforward; sales tax credit on sale/use/storage of equipment and supplies for biotech	Connecticut Innovations Inc. - state-funded corporation; has provided more than \$11m to 22 biotech/biomedical companies since 1989	state invested \$14m in "science park" incubator in New Haven		5 Gov-appointed "Industry Cluster Boards" to review technology-based industries and make recommendations (1997); recommendations currently under review
companies with \$70m or less in gross revenues may exchange unused R&D tax credits for cash payment equal to 65% of value of credit (1999)				CT United for Research Excellence (CURE) and CT DED will administer growth campaign using \$150k of state dollars plus \$250k pledge from industry to bolster state's bioscience industry (workforce, publicity/promotion)
50% income tax credit for operating in enterprise				

Abbreviations:

- ED: economic development
- NOL: Net Operating Loss
- R&D: research & development
- VC: venture capital

	Financial Incentives	Capitalization	Commercialization	Workforce	State Strategy
	zone, 10-yr carryforward				
GA	10% R&D tax credit, 10-yr carryforward, not to exceed 50% of remaining net income tax		Advanced Technology Development Center at GA Tech - incubator for technology companies GA Research Alliance - funds research initiatives & facilities at UG, GSU	Intellectual Capital Partnership Program - public colleges/universities can expedite education of highly skilled workers to meet specific workforce needs job training assistance available of \$500 - \$2500 per new job	
MD	exemptions from state sales tax for certain R&D and manufacturing expenditures 15-yr NOL carryforward financial assistance for facility construction and renovation	Challenge Investment Program: invests \$50k as seed money, matched w/ \$50k from co-investor Enterprise Investment Fund: makes direct equity investments in "second-stage" technology-driven businesses MD VC Trust: provides opportunity for state funds to invest portion of their funds in VC investments MD Industrial Development Financing Authority guarantees up to 80% for	state matching funds up to \$70k annually for U MD faculty to perform R&D work for a company MD Manufacturing Incentive Program - funds up to \$1m annually to assist companies in commercialization early-mid state funding available from MD Dept. of ED state provided \$16.5m loan, Baltimore donated land to build facility for cGMP production, lab use, and	Partnership for Workforce Quality provides 50/50 matching grants for biotech companies for employee training	

Abbreviations:

- ED: economic development
- NOL: Net Operating Loss
- R&D: research & development
- VC: venture capital

	Financial Incentives	Capitalization	Commercialization	Workforce	State Strategy
		loans to lower risk of investing in biotech	manufacturing		
MA	sales tax exemption for qualified manufacturing & most R&D equipment and supplies; 10-15% research & earnings tax credit on MA research with 15-yr carryforward; manufacturing corporations exempted from personal property tax	Commonwealth BioVentures Inc., through limited partner funds, provides seed capital, mgmt assistance, and other resources MA invests some of the state pension fund in real estate and takes equity positions in biotech companies	3 Centers of Excellence with combined budget of \$10m to foster technology transfer, economic development, seed funding, etc. \$15m loan guarantee fund dedicated to emerging growth companies for job-creating facility construction	MA offers job training tax credits	full-time ombudsman within Office of Business Development to work on behalf of biotech industry to provide guidance in navigating the regulatory process
	5-yr NOL carryforward				
NJ	tax credit for 10% of qualified R&D expenses over base, limited to 50% of tax	investment tax credit for 2% of qualified costs up to \$1m, limited to 50% of the tax	NJ Entrepreneurs Forum (Rutgers U) offers mentoring svcs to persons with technically-oriented business plans	New Job Investment Credit for new or expanding businesses that create jobs	joint state/assembly task force established to develop plan for promoting biotech industry - has offered legislative recommendations
	15-yr carryforward of R&D credits and NOLs for qualified small business	Edison Venture Fund III (NJ Economic Dev. Authority is limited partner), Edison Seed Fund (created by Commission on Science & Technology)	NJ Commission on Science & Technology offers technical assistance and bridge loans to companies participating in federal SBIR program; also sponsors 7 incubators; an additional 7-10 will be developed within the next 2		
	emerging biotech and technology firms (limits on size of company) may sell unused R&D credits and NOL deductions to other companies for at least 75%	state's pension fund has begun making investments in biotech			

Abbreviations:

ED: economic development
 NOL: Net Operating Loss
 R&D: research & development
 VC: venture capital

	Financial Incentives	Capitalization	Commercialization	Workforce	State Strategy
	of value of credit (1998)		years		
<i>NY</i>	9% R&D tax credit; R&D purchases exempted from state sales tax 3-yr carryback and 15-yr carryforward for NOLs enterprise/targeted zone tax credit	investment tax credit investment fund for high technology companies	Biotech Centers for Advanced Technology at Cornell and Stony Brook foster collaborations between industry & scientific investigators		NY Office of Science, Technology & Academic Research (NYSTAR) - received annual budget of \$130.6m to oversee faculty development program, tech transfer incentive program, and recommend policies to encourage research & ED Collaborative BioAlliance - cooperative effort between industry, academia, and state government
<i>NC</i>	state's sales tax reduced to 1% or less for R&D uses and exempted for manufacturing equipment purchases 5% R&D tax credit and 5-yr NOL carryforward additional tax credits for companies in State Development Zones	NC Bioscience Investment Fund - \$30m fund consisting of state and private investments 25% (max \$75,000) tax credit for investments in Qualified Business Venture	SBIR Bridge Fund Program, Collaborative Funding Assistance Program, plus other grant and awards programs administered through NC Biotech Center	K-12 Mini-Grants Program Historically Minority Universities Biotechnology Program	NC Biotechnology Center (est. by Assembly in 1981) - encourages industry-university collaborations, tech transfer, business development, VC formation, workforce training. (received \$6.6m approp. for '98-99) NC Technological Development Authority - developing incubators across the state
<i>PA</i>	R&D tax credits with 10-yr NOL carryforward, limited	Technology 21 program: identifying central strategic	Ben Franklin Technology Partnership: \$26m/yr	training and technical assistance program grants	Governor's Action Team: provides "one stop shopping" for

Abbreviations:

- ED: economic development
- NOL: Net Operating Loss
- R&D: research & development
- VC: venture capital

Financial Incentives	Capitalization	Commercialization	Workforce	State Strategy
to \$1m/yr	investments for the state	program to provide grants for products/process development and seed funding for early-stage companies	up to 100% of eligible costs for new job creation	help with site selection, financing incentives, regulatory streamlining, tech transfer linkages
sales tax exemption for items used in research & manufacturing	Innovation Works: community-funded investment organization created to provide funding and entrepreneurial services to young high-tech companies			
numerous loan and grant programs available	15% of tobacco settlement will fund health research & related VC (\$66m/yr for 25 yrs)			
WA R&D tax credit for business & occupation tax up to \$2m/yr	Alliance of Angels - private ED group, goal to improve interactions among "angel" investors and emerging local technology companies seeking funding	Advanced Technology Initiative - partnership between private business and state universities to help create new industries & transform existing ones		
	capital investments for qualified high-tech firms (incl. Biotech) are exempt from state sales tax	WA Tech. Center - state-funded enterprise, supports commercially promising R&D by providing grants to professors and encouraging them to team up with entrepreneurs		
		WA Research Foundation - private foundation aimed at		

Abbreviations:

- ED: economic development
- NOL: Net Operating Loss
- R&D: research & development
- VC: venture capital

Financial Incentives	Capitalization	Commercialization	Workforce	State Strategy
<p><i>WI</i> R&D tax credit of 5% for qualified research expenditures</p>	<p>State of WI Investment Board will allocate \$50m for investment in 1st and 2nd stage biotechnology companies based in the state (1999)</p> <p>Gov. Thompson has proposed a \$1m state budget allocation to establish a biotech capital corporation that will fund WI-based start-up companies up to \$200k</p>	<p>maximizing ED benefits of research at WA universities by starting companies and investing earnings in further research</p>		