

What is claimed is:

1. A cell culture article, comprising:
 - a substrate having a surface;
 - a swellable (meth)acrylate layer disposed on the surface of the substrate, wherein the swellable (meth)acrylate layer is formed from a composition comprising a carboxyl group-containing (meth)acrylate monomer which is 2-carboxyethylacrylate, a cross-linking (meth)acrylate monomer, and a hydrophilic monomer capable of polymerizing with the carboxyl group-containing (meth)acrylate monomer and the cross-linking (meth)acrylate monomer; and
 - a peptide conjugated to a carboxyl group of the carboxyl group-containing monomer of the swellable (meth)acrylate layer.
2. The cell culture article of claim 1, wherein the swellable (meth)acrylate layer has an equilibrium water content in water of between about 5% and about 50%.
3. The cell culture article of claim 1, wherein the cross-linking (meth)acrylate monomer is tetra(ethylene glycol) dimethacrylate or tetra(ethylene glycol) diacrylate.
4. The cell culture article of claim 1, wherein the hydrophilic monomer is selected from the group consisting of hydroxyethyl methacrylate, hydroxypropyl methacrylate, 2-hydroxyethyl acrylate, 1-vinyl-2-pyrrolidone, di(ethylene glycol) ethyl ether methacrylate, acrylamide, ethylene glycol methyl ether methacrylate or 3-sulfopropyl dimethyl-3-methacrylamidopropyl-ammonium.

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SEQUENCE LISTING

<110> Corning, Inc.

<120> SYNTHETIC SURFACES FOR CULTURING CELLS IN CHEMICALLY DEFINED MEDIA

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<140> 12/362,924
<141> 2009-01-30

<150> US 61/062,890
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<151> 2008-01-30

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<170> PatentIn version 3.5

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<223> RGD-containing polypeptide

<220>
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<222> (1)..(1)
<223> Xaa is Yaa(1) Xaa(n), where n is 0 to 4, 1 is 0 or 1, each Xaa is independently any amino acid, Yaa is any amino acid

<220>
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<223> Xaa is Xaa(m)Yaa(1), where m is 0 to 5, 1 is 0 or 1, each Xaa is independently any amino acid, Yaa is any amino acid

<400> 1

Xaa Arg Gly Asp Xaa
1 5

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<223> Xaa is Zaaxaa(n), where n is 0 to 4, each Xaa is independently any amino acid, and Zaa together with Baa form a covalent bond to cyclize the polypeptide

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<223> Xaa is Xaa(m)Baa, where m is 0 to 5, each Xaa is independently any amino acid, and Baa together with Zaa form a covalent bond to cyclize the polypeptide

<400> 2

Xaa Arg Gly Asp Xaa
1 5

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<220>

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<223> Xaa is Yaa(l)Xaa(m)ZaaXaa(n), where l is 0 or 1, m is 0 to 5, n is 0 to 4, each Xaa is independently any amino acid, Yaa is any amino acid, and Zaa together with Baa form a covalent bond to cyclize the polypeptide

<220>

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<222> (5)..(5)

<223> Xaa is Xaa(m)BaaXaa(m)Yaa(l), where l is 0 or 1, m is 0 to 5, each Xaa is independently any amino acid, Yaa is any amino acid, and Baa together with Zaa form a covalent bond to cyclize the polypeptide

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1 5

<210> 4

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1 5 10 15

<210> 5

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5

10

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 <223> Lys at residue 4 froms amide bond with Asp at residue 17 to
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<220>
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 <222> (17)..(17)
 <223> Asp at residue 17 froms amide bond with Lysat residue 4 to
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 1 5 10 15

Asp

<210> 7
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<220>
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 bonesialo protein

<220>
 <221> MISC_FEATURE
 <222> (4)..(4)
 <223> Lys at residue 4 forms amide bond with Asp at residue 13 to
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<220>
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 <222> (13)..(13)
 <223> Asp at residue 13 forms amide bond with Lys at residue 4 to
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Lys Gly Gly Lys Glu Pro Arg Gly Asp Thr Tyr Arg Asp
 1 5 10

<210> 8
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 <223> Cys at residue 4 forms a disulfide bond with Cys at residue 17 to
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 <222> (17)..(17)
 <223> Cys at residue 17 forms a disulfide bond with Cys at residue 4 to
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<400> 8

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 1 5 10 15

Cys

<210> 9
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 bonesialo protein

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 cyclize polypeptide

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 cyclize polypeptide

<400> 9

Lys Gly Gly Cys Glu Pro Arg Gly Asp Thr Tyr Arg Cys
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1 5 10 15

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<223> Synthetic polypeptide including sequence derived from human fibronectin

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1 5

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<220>

<223> Synthetic polypeptide including sequence derived from human fibronectin

<400> 12

Lys Gly Gly Ala Val Thr Gly Arg Gly Asp Ser Pro Ala Ser Ser
1 5 10 15

<210> 13

<211> 20

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<213> Artificial Sequence

<220>

<223> Synthetic polypeptide including sequence derived from mouse laminin (CYR61)

<400> 13

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1 5 10 15

Cys Ser Lys Ser
20

<210> 14

<211> 13

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<220>

<223> Synthetic polypeptide including sequence derived from human thrombospondin 1

<400> 14

Lys Tyr Gly Leu Ala Leu Glu Arg Lys Asp His Ser Gly
 1 5 10

<210> 15
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<220>
 <223> synthetic polypeptide including sequence derived from mouse
 laminin (SN)

<400> 15

Lys Gly Gly Ser Ile Asn Asn Asn Arg Trp His Ser Ile Tyr Ile Thr
 1 5 10 15

Arg Phe Gly Asn Met Gly Ser
 20

<210> 16
 <211> 15
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<220>
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 laminin (AG32)

<400> 16

Lys Gly Gly Thr Trp Tyr Lys Ile Ala Phe Gln Arg Asn Arg Lys
 1 5 10 15

<210> 17
 <211> 15
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<220>
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 laminin (C68)

<400> 17

Lys Gly Gly Thr Ser Ile Lys Ile Arg Gly Thr Tyr Ser Glu Arg
 1 5 10 15

<210> 18
 <211> 16
 <212> PRT
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<220>
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 laminin (C28)

<400> 18

Lys Tyr Gly Thr Asp Ile Arg Val Thr Leu Asn Arg Leu Asn Thr Phe
 1 5 10 15

<210> 19
 <211> 16
 <212> PRT
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<220>
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 laminin (C64)

<400> 19

Lys Tyr Gly Ser Glu Thr Thr Val Lys Tyr Ile Phe Arg Leu His Glu
 1 5 10 15

<210> 20
 <211> 15
 <212> PRT
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<220>
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 laminin (A208)

<400> 20

Lys Tyr Gly Ala Ala Ser Ile Lys Val Ala Val Ser Ala Asp Arg
 1 5 10 15

<210> 21
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<220>
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 laminin (C16)

<400> 21

Lys Tyr Gly Lys Ala Phe Asp Ile Thr Tyr Val Arg Leu Lys Phe
 1 5 10 15

<210> 22
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<220>
 <223> Synthetic polypeptide (AG73 with KYG linker)

<400> 22

Lys Tyr Gly Arg Lys Arg Leu Gln Val Gln Leu Ser Ile Arg Thr
 1 5 10 15

<210> 23
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<220>
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<400> 23

Lys Gly Gly Arg Asn Ile Ala Glu Ile Ile Lys Asp Ile
 1 5 10

<210> 24
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 1 5 10

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<220>
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 1 5 10

<210> 26
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<210> 27
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<400> 27

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 1 5

<210> 28
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<220>

<223> Synthetic polypeptide containing RGD

<400> 28

Gly Arg Gly Asp Ser Pro Ile Ile Lys
1 5

<210> 29

<211> 15

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<220>

<223> Synthetic polypeptide including sequence derived from human vitronectin

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Lys Gly Gly Pro Gln Val Thr Arg Gly Asp Val Phe Thr Met Pro
1 5 10 15

<210> 30

<211> 9

<212> PRT

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<220>

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<400> 30

Gly Arg Gly Glu Ser Pro Ile Tyr Lys
1 5

<210> 31

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic polypeptide including sequence derived from mouse bonesialo protein

<400> 31

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