R^{19a} is a substituent attached to the para position of phenyl and is selected from the group consisting of H, unsubstituted $-C_{2-6}$ alkyl, $-CH_2OH$, $-CH_2N(R^{21})_2$, $-C_{1-3}$ haloalkyl, F, Br, I, $-OR^{20}$, CF_3, and CN;

R^{19b} is a substituent attached to the meta or ortho position of phenyl and is selected from the group consisting of H, unsubstituted $-C_{2-6}$ alkyl, $-CH_2OH$, $-CH_2N(R^{21})_2$, $-C_{1-3}$ haloalkyl, halide, $-OR^{20}$, CF_3, and CN;

R^{19c} is 2-5 substituents, each attached to the phenyl and are independently selected at each occurrence from the group consisting of H, $-CH_2OH$, $-CH_2N(R^{21})_2$, $-C_{1-3}$ haloalkyl, halide, $-OR^{20}$, CF_3, and CN;

R^{19d} is 1-4 substituents, each attached to the heteroaryl ring and is independently selected at each occurrence from the group consisting of H, $-CH_2OH$, $-CH_2N(R^{21})_2$, $-C_{1-3}$ haloalkyl, halide, $-OR^{20}$, CF_3, and CN;

each R^{20} is independently selected from the group consisting of H, unsubstituted $-C_{3-6}$ alkyl, $-C_{1-3}$ haloalkyl, and CF_3;

each R^{21} is independently selected from the group consisting of H and unsubstituted $-C_{1-3}$ alkyl;

p is an integer of 1 to 13; and

r is an integer of 1 to 5.

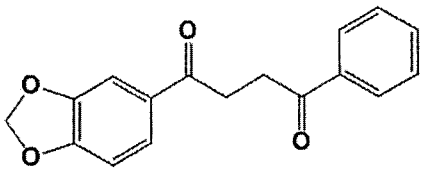
[0034] Some embodiments include stereoisomers of a compound of Formula **I, II, III, IIIa,** and/or **IIIb**.

[0035] Some embodiments include prodrugs of a compound of Formula **I, II, III, IIIa,** and/or **IIIb**. For example, prodrugs of a compound of Formula **I, II, III, IIIa,** and/or **IIIb** can be prodrug polymer conjugates for delayed release or extended release.

[0036] Also provided herein are pharmaceutical compositions comprising a compound of Formula **I, II, III, IIIa,** and/or **IIIb** and a pharmaceutically acceptable carrier, diluent, or excipient.

[0037] Some embodiments of the present disclosure include methods to prepare compounds of Formula **I, II, III, IIIa,** and/or **IIIb**.

[0037a] In one aspect, there is provided a compound of formula:



or a pharmaceutically acceptable salt thereof.

[0037b] In one aspect, there is provided a pharmaceutical composition comprising a compound as described above, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable excipient.

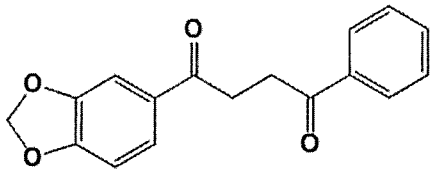
[0037c] In one aspect, there is provided use of a compound as described above, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for treating a disorder or disease in a patient, wherein the disorder or disease is selected from a group consisting of a neurodegenerative disease, eye disease, osteoporosis, osteoarthropathy, osteogenesis imperfecta, bone defects, bone fractures, periodontal disease, otosclerosis, wound healing, oral mucositis, gastrointestinal mucositis, craniofacial defects, and oncolytic bone disease.

[0037d] In one aspect, there is provided use of a compound as described above, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for treating a disorder or disease related to differentiation and growth of stem cells in a patient, wherein the disorder or disease is selected from a group consisting of hair loss, hematopoiesis related diseases, tissue regeneration related diseases, and other diseases associated with abnormalities in development, stem cell differentiation, and cell proliferation .

[0038] It is to be understood that both the foregoing general description and the following detailed description are exemplary and explanatory only and are not restrictive of the invention, as claimed.

CLAIMS

1. A compound of formula:



or a pharmaceutically acceptable salt thereof.

2. A pharmaceutical composition comprising a compound according to claim 1, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable excipient.

3. Use of a compound of claim 1, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for treating a disorder or disease in a patient, wherein the disorder or disease is selected from a group consisting of a neurodegenerative disease, eye disease, osteoporosis, osteoarthropathy, osteogenesis imperfecta, bone defects, bone fractures, periodontal disease, otosclerosis, wound healing, oral mucositis, gastrointestinal mucositis, craniofacial defects, and oncolytic bone disease.

4. The use of claim 3, wherein the disorder or disease is a neurodegenerative disease, wherein the neurodegenerative disease is selected from: Parkinson's disease, stroke, spinal cord injury, ischemic cerebral disease, epilepsy, Alzheimer's disease, dementia, depression, bipolar disorder, and schizophrenia.

5. The use of claim 3, wherein the disorder or disease is an eye disease, wherein the eye disease is selected from: wet age-related macular degeneration, dry age-related macular degeneration, geographic atrophy, diabetic retinopathy, diabetic macular edema, retinal detachment, retinal degeneration, retinal vein occlusion, retinopathy of prematurity, retinitis pigmentosa, retinopathies, Leber congenital amaurosis and glaucoma.

6. The use of claim 3, wherein the disorder or disease is selected from a group consisting of osteoporosis, osteoarthropathy, osteogenesis imperfecta, bone defects, bone

fractures, periodontal disease, otosclerosis, wound healing, oral mucositis, gastrointestinal mucositis, craniofacial defects, and oncolytic bone disease.

7. Use of a compound of claim 1, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for treating a disorder or disease related to differentiation and growth of stem cells in a patient, wherein the disorder or disease is selected from a group consisting of hair loss, hematopoiesis related diseases, tissue regeneration related diseases, and other diseases associated with abnormalities in development, stem cell differentiation, and cell proliferation.

8. The use of claim 7, wherein the disorder or disease is hair loss.

9. The use according to any one of claims 3 to 8, wherein the patient is a human.