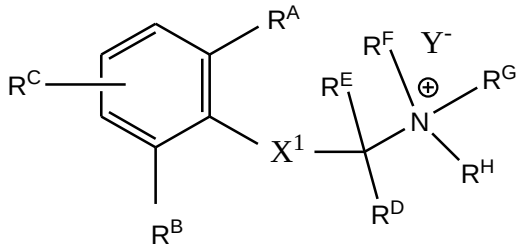
CLAIMS

What is claimed is:

1. A compound represented by Formula (**I**)



(**I**),

wherein:

Y^- is a pharmaceutically acceptable anion;

R^A is CO_2R^T;

R^T is substituted or unsubstituted alkyl;

R^B is H, D, halogen, or substituted or unsubstituted alkyl;

R^C is selected from as H, D, halogen, substituted or unsubstituted alkyl, substituted or unsubstituted alkenyl, substituted or unsubstituted alkynyl, substituted or unsubstituted aryl, substituted or unsubstituted heteroaryl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted heterocycloalkyl, OR^I, CN, NR^JR^K, $NR^LC(O)R^M$, $S(O)R^N$, $S(O)_2R^N$, $SO_2R^OR^P$, $SO_2NR^QR^R$, SO_3R^S, CO_2R^T; $C(O)R^U$, and $C(O)NR^VR^W$;

each of R^I, R^J, R^K, R^L, R^M, R^N, R^O, R^P, R^Q, R^R, R^S, R^U, R^V, and R^W is independently selected from H, D, substituted or unsubstituted alkyl, substituted or unsubstituted alkenyl, substituted or unsubstituted alkynyl, substituted or unsubstituted aryl, substituted or unsubstituted heteroaryl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted heterocycloalkyl, or R^J and R^K or R^V and R^W or R^Q and R^R can also be taken together with the nitrogen to which they are attached to form a substituted or unsubstituted 5, 6, 7, or 8 membered ring;

X^1 is —$NR^ZC(O)$—;

R^Z is H, D, substituted or unsubstituted alkyl, substituted or unsubstituted alkenyl, substituted or unsubstituted alkynyl, and substituted or unsubstituted heteroalkyl;

each of R^D and R^E is independently selected from H, D, substituted or unsubstituted alkyl, substituted or unsubstituted alkenyl, substituted or unsubstituted alkynyl, substituted or unsubstituted heteroalkyl, and substituted or unsubstituted cycloalkyl;

or R^D and R^E together with the carbon to which they are attached form a substituted or unsubstituted cycloalkyl or a substituted or unsubstituted heterocyclic;

or R^D and R^Z together with the carbon and the —NC(O)— to which they are attached form a substituted or unsubstituted lactam;

wherein R^F and R^G together with the N^+ to which they are attached form an optionally substituted 5- to 10-membered heterocyclic ring having zero, one, or more heteroatoms in addition to the N^+, and R^H is a substituted or unsubstituted $–CH_2$-C_5-C_{10} aryl, or substituted or unsubstituted $–CH_2$-C_5-C_{10} heteroaryl.

2. The compound of claim 1, wherein R^T is methyl or ethyl.

3. The compound of claim 1, wherein X^1 is —NHC(O)—.

4. The compound of claim 1, wherein R^B is methyl, and R^C is selected from the group consisting of hydrogen, methyl, halogen, nitrile, methoxy, and ethoxy.

5. The compound of claim 1, wherein R^B are methyl and R^C is hydrogen.

6. The compound of claim 1, wherein each of R^D and R^E is independently selected from hydrogen, D, substituted or unsubstituted alkyl; or R^D and R^E together form a substituted or unsubstituted C_3-C_6 cycloalkyl or substituted or unsubstituted heterocyclic.

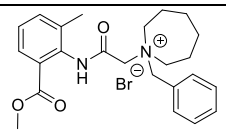
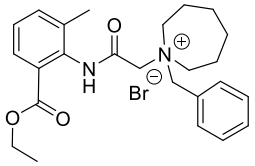
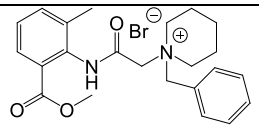
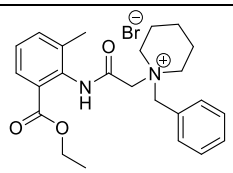
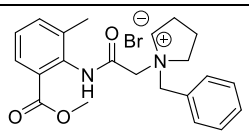
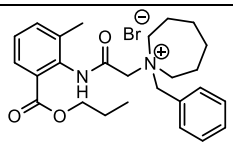
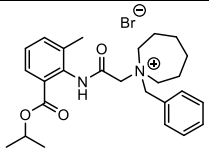
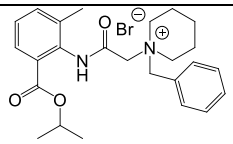
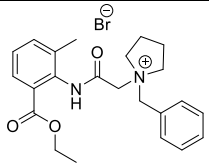
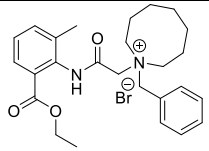
7. The compound of claim 6, wherein R^D and R^E are both hydrogen.

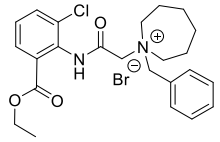
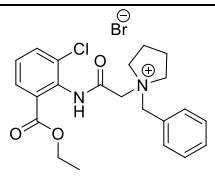
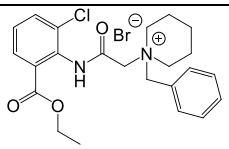
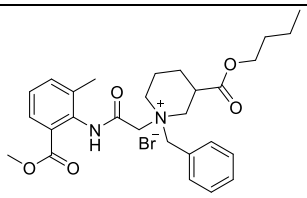
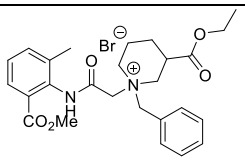
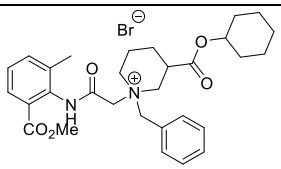
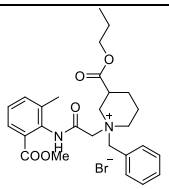
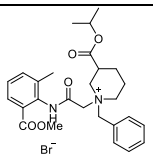
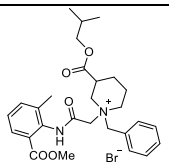
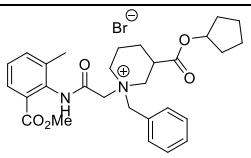
8. The compound of claim 6, wherein R^D is hydrogen and R^E is a C_1-C_4 alkyl.

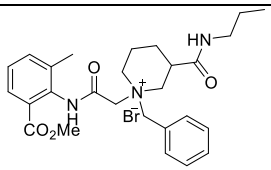
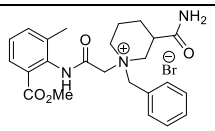
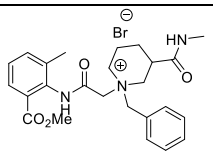
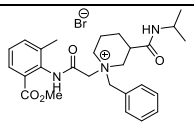
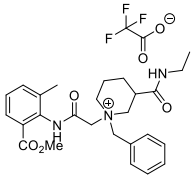
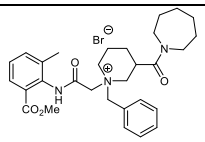
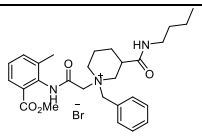
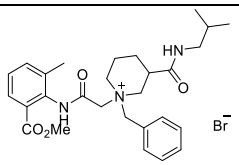
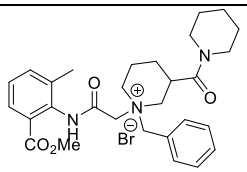
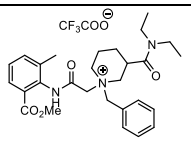
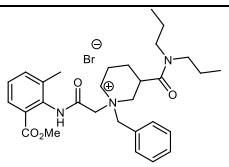
9. The compound of claim 8, wherein R^D is hydrogen and R^E is methyl, ethyl, n-propyl, or n-butyl.

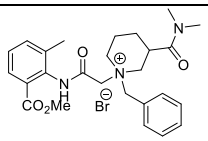
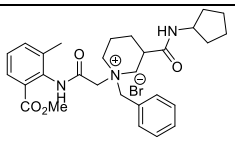
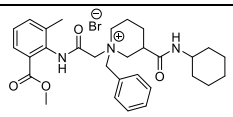
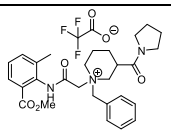
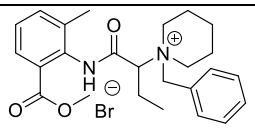
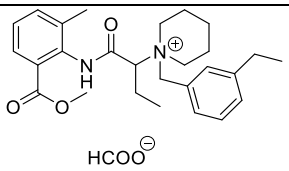
10. The compound of claim 6, wherein R^D and R^E are taken together with the carbon to which they are attached to form a substituted or unsubstituted C_3-C_6 cycloalkyl.

11. The compound of claim 1, wherein the compound is selected from those in the Table below

Compound	Structure
1A	
2A	
3A	
4A	
5A	
6A	
7A	
8A	
9A	
10A	

11A	
12A	
13A	
14A	
16A	
17A	
18A	
19A	
20A	
21A	

28A	
30A	
31A	
32A	
33A	
34A	
35A	
36A	
37A	
38A	
39A	

40A	
41A	
42A	
43A	
57	
58A	

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12. A pharmaceutical composition comprising the compound of claim 1 or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable excipient.

13. The composition of claim 13, wherein said composition is formulated for oral, intravenous, intramuscular, rectal, cutaneous, subcutaneous, topical, transdermal, sublingual, nasal, inhalation, vaginal, intrathecal, epidural, or ocular administration.

14. Use of a compound of any one of claims 1 to 11 or a composition of any one of claims 12 to 13 in the manufacture of a medicament for treating pain, cough, itch, or a neurogenic inflammatory disorder.

15. The use of claim 14, wherein said pain is selected from the group consisting of pain due to back and neck pain, lower back pain, cancer pain, gynecological and labor pain, fibromyalgia, arthritis, rheumatoid arthritis, osteoarthritis, rheumatological pains, orthopedic pains, acute and post herpetic neuralgia and other neuropathic pains,

sickle cell crises, vulvodynia, peri-anal pain, irritable bowel disease, irritable bowel syndrome, inflammatory bowel disease, oral mucositis, esophagitis, interstitial cystitis, urethritis and other urological pains, dental pain, headaches, trigeminal trophic syndrome, erythromelalgia, abdominal wall pain, chronic abdominal wall pain, allergic rhinitis, muscle pain, rectal pain, Levator ani syndrome, proctalgia fugax, hemorrhoid pain, stomach pain, skin ulcers, stomach ulcers, burn pain, ophthalmic irritation, conjunctivitis, eye redness, dry eye, dry eye syndrome, complex regional pain syndrome, post-surgical ocular pain, postoperative pain, acute postoperative pain, and procedural pain.

16. The use of claim 15, wherein said cough is selected from the group consisting of cough in patients with asthma, COPD, asthma-COPD overlap syndrome (ACOS), interstitial pulmonary fibrosis (IPF), idiopathic pulmonary fibrosis, post viral cough, post-infection cough, chronic idiopathic cough and lung cancer.

17. The use of claim 15, wherein said itch is selected from the group consisting of itch due to pruritus, brachioradial pruritus, chronic idiopathic pruritus, genital/anal pruritus, notalgia paresthetica, scalp pruritus, allergic dermatitis, contact dermatitis, atopic dermatitis, hand eczema, poison ivy, infections, parasites, insect bites, pregnancy, metabolic disorders, liver or renal failure, drug reactions, allergic reactions, eczema, genital and anal itch, hemorrhoid itch, and cancer.

18. The use of claim 15, wherein said neurogenic inflammatory disorder is selected from the group consisting of allergic inflammation, asthma, chronic cough, conjunctivitis, rhinitis, psoriasis, inflammatory bowel disease, interstitial cystitis, arthritis, colitis, contact dermatitis, diabetes, eczema, cystitis, gastritis, migraine headache, rosacea, sunburn, pancreatitis, chronic rhinosinusistis, traumatic brain injury, polymicrobial sepsis, tendinopathies, chronic urticaria, rheumatic disease, acute lung injury, exposure to irritants, inhalation of irritants, pollutants, chemical warfare agents, and atopic dermatitis.