WHAT IS CLAIMED IS:

1. A method for monitoring and/or predicting a rheumatoid arthritis (RA) flare or increased RA disease activity in a patient comprising:

(a) detecting in a blood sample increased amounts of a panel of antecedent RA markers, wherein the panel comprises:

(i) one or more or all AC3 markers are selected from those listed in Table 12 (COL14A1. DCLK1, FNDC1, COL16A1, COL 1A2, KIAA1755, PXDN, and COL5A1):

(ii) at least 2 or more of the AC3 markers listed in Table 12 (COL14A1, DCLK1, FNDC1, COL16A1, COL1A2, KIAA1755, PXDN, and COL5A1):

(iii) one or more AC3 markers listed in Table 11: or

(iv) one or more AC3 markers listed in Table 10;

(b) wherein the expression or quantitatively increased amounts of the AC3 markers predicts an impending RA flare or increased RA disease activity.

2. The method of claim 1, wherein a panel of antecedent RA markers comprising those listed in Table 12 (COL14A1, DCLK1, FNDC1, COL16A1, COL1A2, KIAA1755, PXDN, and COL5A1) are evaluated to detect increased amounts of one or more of the AC3 markers listed in Table 12.

3. The method of claim 1 or claim 2, wherein the increased amounts of the AC3 RNA markers or the AC3 protein markers predicts an RA flare in about 1 week or about 5-7 days or up to 2 weeks.

4. The method of any one of the preceding claims, wherein the panel consists of 2 to 283 antecedent markers or wherein a panel of at least 3, at least 4, at least 5 or at least 6 of the AC3 markers are evaluated.

5. The method of any one of the preceding claims, wherein the method further comprises detecting increased amounts of one or more AC2 markers listed in Table 7.

6. The method of claim 1, wherein the increased amounts of one or more AC3 RNA markers are detected using RNAseq or RT-PCR, optionally wherein detecting comprises amplifying the one or more AC3 RNA markers in Table 12 using primer pairs listed in Table 13; or wherein the increased amount of the one or more AC3 protein markers is detected using antibodies specific for the AC3 protein markers.

7. The method of any of the preceding claims, wherein the amount of antecedent AC3 markers are decreased in peripheral blood during an RA flare or once a patient exhibits symptoms of an RA flare.

8. A computer implemented method for predicting an impending RA flare or increased RA disease activity in a patient comprising:

a) detecting amounts of a panel of AC3 markers, wherein the panel comprises:

(i) one or more or all AC3 markers are selected from those listed in Table 12 (COL14A1. DCLK1, FNDC1, COL16A1, COL1A2, KIAA1755, PXDN, and COL5A1):

(ii) at least 2 or more of the AC3 markers listed in Table 12 (COL14A1, DCLK1, FNDC1, COL16A1, COLIA2, KIAA1755, PXDN, and COL5A1):

(iii) one or more AC3 markers listed in Table 11: or

(iv) one or more AC3 markers listed in Table 10, and

b) determining, using one or more computer processors, that the patient has an impending RA flare or increased RA disease activity if the amounts of the panel of AC3 markers are higher than the amounts of the AC3 markers in a control blood sample.

9. A method for predicting an impending RA flare or increased RA disease activity in a patient, the method comprising:

a) contacting a blood sample from the patient with reagents specific for detecting a panel of AC3 markers, wherein the panel comprises:

(i) one or more or all AC3 markers are selected from those listed in Table 12 (COL14A1 DCLK1, FNDC1, COL16A1, COL1A2, KIAA1755, PXDN, and COL5A1):

(ii) at least 2 or more of the AC3 markers listed in Table 12 (COL14A1. DCLK1. FNDC1, COL16A1, COL1A2, KIAA1755, PXDN, and COL5A1);

(iii) one or more AC3 markers listed in Table 11; or

(iv) one or more AC3 markers listed in Table 10,

b) detecting amounts of the markers of the panel in the blood sample, wherein detection of increased amounts serves to predict an impending RA flare in a patient,

c) comparing the amounts of the markers in the panel to the amounts of the markers in a control blood sample, and

d) identifying the patient as suitable for treatment with a therapeutically effective amount of one or more disease-modifying agent for treating RA if the amounts of the markers of the panel in the blood sample is increased relative to the amounts of the markers in the control blood sample; optionally wherein the disease-modifying agent for treating RA is one or more agent selected from a nonsteroidal anti-inflammatory drug (NSAID), steroid, methotrexate, disease-modifying antirheumatic drug (DMARDs), biologic DMARD, and oral janus kinase (JAK) inhibitor.

10. The method of claim 9, wherein:

a panel of antecedent RA markers comprising those AC3 markers listed in Table 12 (COL14A1, DCLK1, FNDC1, COL16A1, COL1A2, KIAA1755, PXDN, and COL5A1) are evaluated

to detect increased amounts of one or more of the AC3 markers; or

the increased amounts of the AC3 markers predicts an RA flare in about 1 week or about 5-7 days, optionally wherein step (d) is performed within one (1) week or within 5-7 days from the step (a).

11. The method of claim 9, wherein:

(i) the DMARD is selected from methotrexate (Trexall, Otrexup), leflunomide (Arava), hydroxychloroquine (Plaquenil) and sulfasalazine (Azulfidine);

(ii) the biologic DMARD is selected from abatacept (Orencia), adalimumab (Humira), anakinra (Kineret), baricitinib (Olumiant), certolizumab (Cimzia), etanercept (Enbrel), golimumab (Simponi), infliximab (Remicade), rituximab (Rituxan), sarilumab (Kevzara), tocilizumab (Actemra) and tofacitinib (Xeljanz);

(iii) the biologic DMARD is a tumor necrosis factor (TNF) inhibitor;

(iv) the biologic DMARD is combined with an NSAID and/or with methotrexate;

(v) the JAK inhibitor is selected from tofacitinib (Xeljanz and Xeljanz XR), baricitinib (Olumiant), and upadacitinib (Rinvoq); or

(vi) the disease-modifying agent for treating RA is an IL-17 antibody or an IL-17RD blocking antibody.

12. One or more RA disease-modifying agents for use in a method of treating a patient having an impending RA flare or increased RA disease activity, the method comprising

(a) selecting a patient who has been diagnosed as having increased amounts of a panel of markers as compared ot a control blood sample,

wherein the panel of markers comprises:

(i) one or more or all AC3 markers are selected from those listed in Table 12 (COL14A1. DCLK1, FNDC1, COL16A1, COLIA2, KIAA1755, PXDN, and COL5A1):

(ii) at least 2 or more of the AC3 markers listed in Table 12 (COL14A1, DCLK1. FNDC1, COL16A1, COLIA2, KIAA1755, PXDN, and COL5A1):

(iii) one or more AC3 markers listed in Table 11; or

(iv) one or more AC3 markers listed in Table 10, and

(b) a therapeutically effective amount of one or more disease-modifying agent is to be administered to the patient prior to the onset of RA,

optionallv wherein the one or more RA disease-modifving agent is selected from a nonsteroidal antiinflammatory drug (NSAID), steroid, methotrexate, disease-modifying antirheumatic drug (DMARDs), biologic DMARD, and oral janus kinase (JAK) inhibitor.

13. A panel of AC3 markers for use in evaluating and predicting an impending RA flare or increased RA disease activity in a patient comprising the markers selected from:

(i) one or more or all AC3 markers are selected from those listed in Table 12 (COL14A1 DCLK1, FNDC1, COL16A1, COL1A2, KIAA1755, PXDN, and COL5A1);

(ii) at least 2 or more of the AC3 markers listed in Table 12 (COL14A1, DCLK1, FNDC1. COL16A1, COL1A2, KIAA1755, PXDN, and COL5A1);

(iii) one or more AC3 markers listed in Table 11; or

(iv) one or more antecedent RNA markers or protein markers listed in Table 12.

14. A collection of primer pairs for amplifying the AC3 markers in claim 14, optionally wherein the collection of primers comprises one or more of the primers listed in Table 13.

15. A system or kit for predicting an impending RA flare or increased RA disease activity comprising a set of markers of claim 14, or a set of primers and/or antibodies for evaluating a set of markers of claim 13, optionally further comprising a means for collecting the patient's blood by fingerstick.